STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL	
2. TYPE OF WORK DRILL NEW WELL (●) REENTER P&A WELL ( ) DEEPEN WELL ( )	**1. WELL NAME and NUMBER** NBU 921-19L
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO	**3. FIELD OR WILDCAT** NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.	**5. UNIT or COMMUNITIZATION AGREEMENT NAME** NATURAL BUTTES
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217	**7. OPERATOR PHONE** 720 929-6587
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 0581	**9. OPERATOR E-MAIL** mary.mondragon@anadarko.com
11. MINERAL OWNERSHIP FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )	**12. SURFACE OWNERSHIP** FEDERAL ( ) INDIAN (●) STATE ( ) FEE ( )
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') Ute Tribe	**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES (●) (Submit Commingling Application) NO ( )
	19. SLANT VERTICAL (●) DIRECTIONAL ( ) HORIZONTAL ( )

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2636 FSL 1534 FWL	NWSW	19	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	2636 FSL 1534 FWL	NWSW	19	9.0 S	21.0 E	S
At Total Depth	2636 FSL 1534 FWL	NWSW	19	9.0 S	21.0 E	S

21. COUNTY UINTAH	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 1534	**23. NUMBER OF ACRES IN DRILLING UNIT** 2400
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 800	**26. PROPOSED DEPTH** MD: 10300 TVD: 10300
27. ELEVATION - GROUND LEVEL 4829	**28. BOND NUMBER**	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORCANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**	☑ **COMPLETE DRILLING PLAN**
☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**	☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
☐ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**	☑ **TOPOGRAPHICAL MAP**

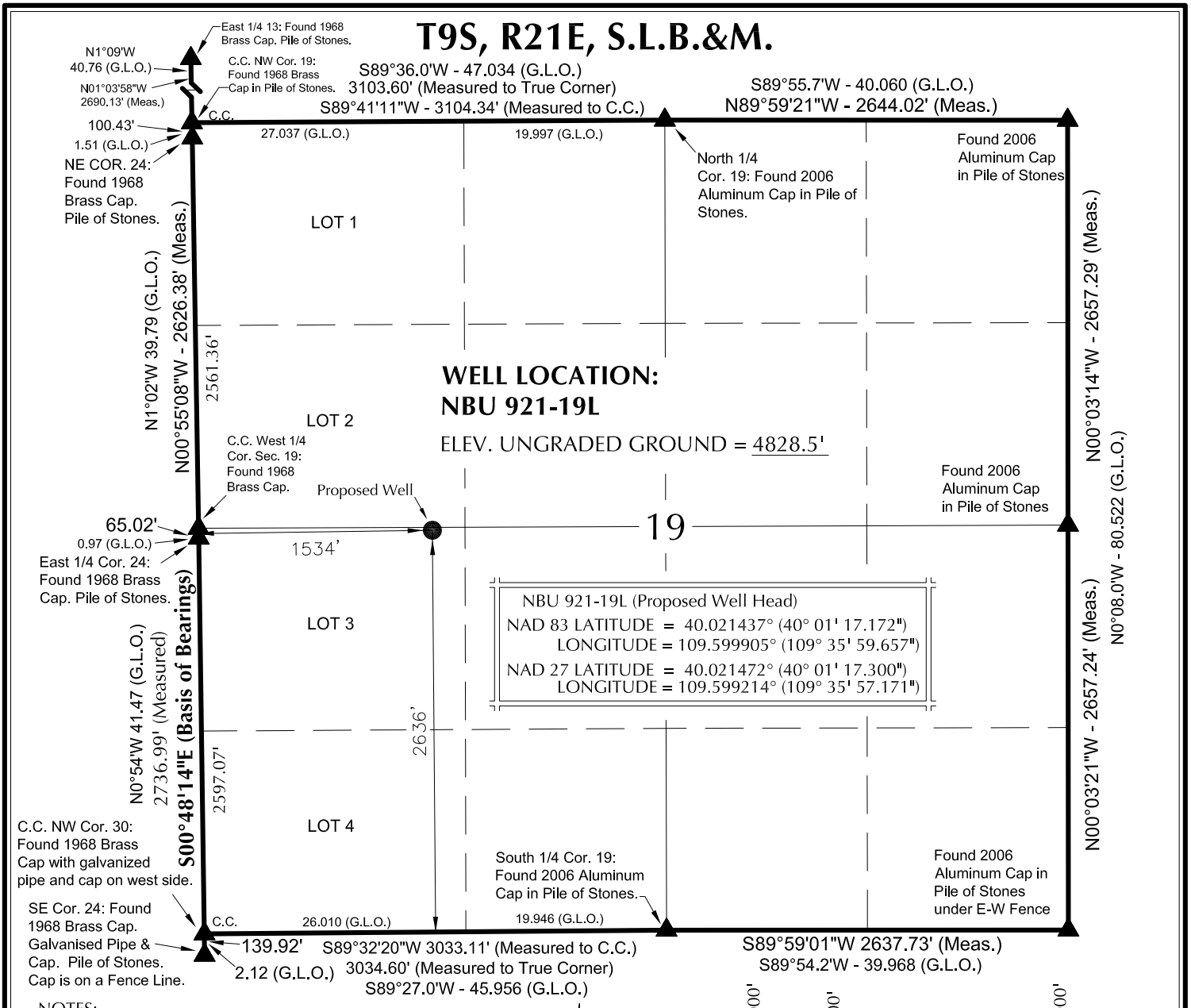
NAME Danielle Piernot	**TITLE** Regulatory Analyst	**PHONE** 720 929-6156
SIGNATURE	**DATE** 09/22/2009	**EMAIL** danielle.piernot@anadarko.com
API NUMBER ASSIGNED 43047507100000	**APPROVAL**  Permit Manager	

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	10300		
Pipe	**Grade**	**Length**	**Weight**			
	Grade HCP-110 LT&C	700	11.6			
	Grade I-80 Buttress	9600	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	2615		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2615	36.0			

’APIWellNo:43047507100000’

T9S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. Bearings are based on Global Positioning Satellite observations.
4. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR No.362251 KOLBY R. KAY UTAH STATE OF UTAH

REGISTERED LAND SURVEYOR
REGISTRATION No. 362251
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-19L

NBU 921-19L
WELL PLAT
2636' FSL, 1534' FWL
LOT 3 OF SECTION 19, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 04-09-09	SURVEYED BY: B.J.S.	SHEET NO: 1
DATE DRAWN: 04-10-09	DRAWN BY: E.M.S.	1 OF 9
SCALE: 1" = 1000'	Date Last Revised:	

’APIWellNo:43047507100000’

NBU 921-19L
Surface: 2,636’ FSL 1,534’ FWL (NW/4SW/4) Lot 3
Sec. 19 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0581

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,666’	
Birds Nest	1,913’	Water
Mahogany	2,411’	Water
Wasatch	5,034’	Gas
Mesaverde	8,116’	Gas
MVU2	9,077’	Gas
MVL1	9,593’	Gas
TD	10,300’	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,300' TD, approximately equals 6,417 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4,151 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found

competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see

attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

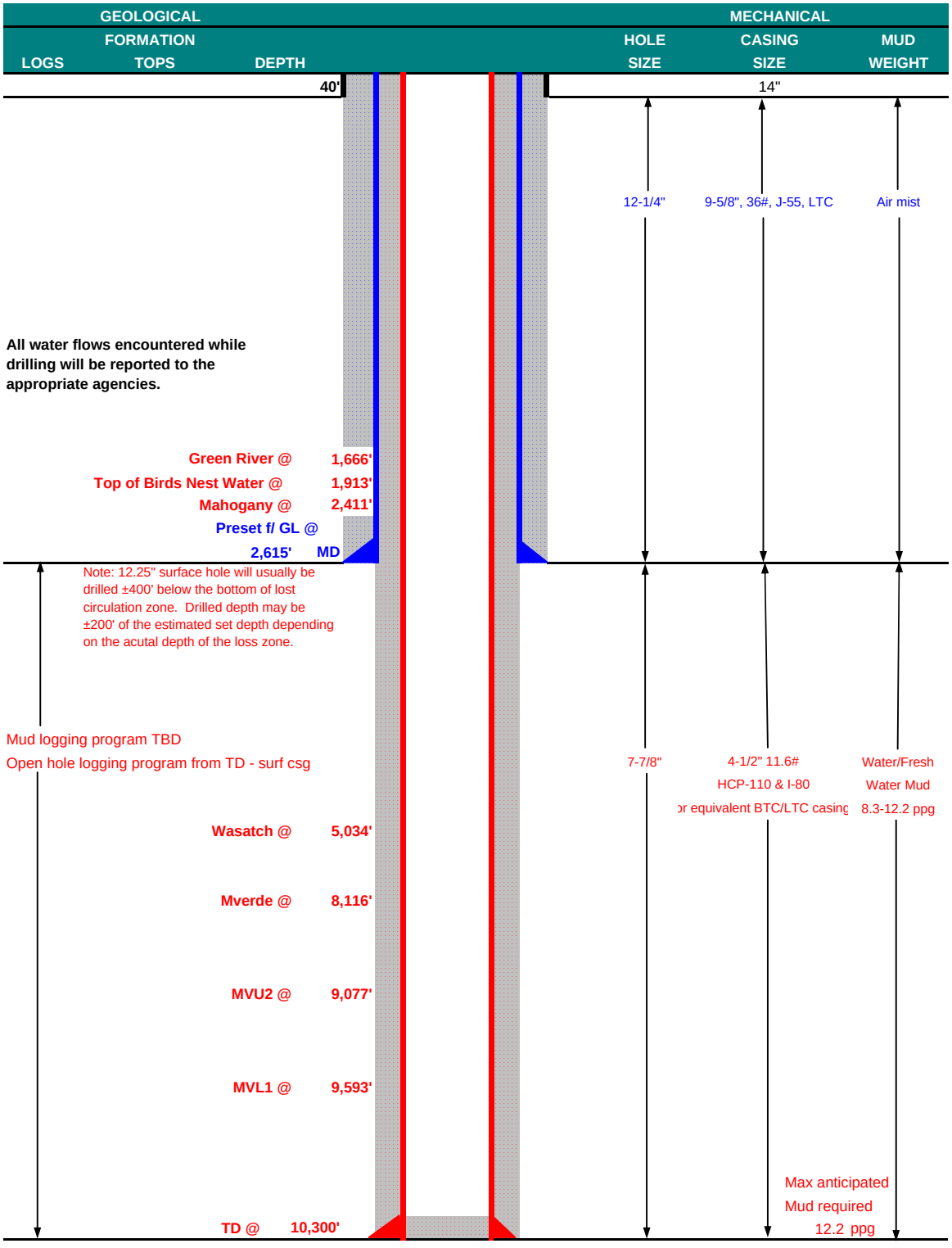
Please refer to the attached Drilling Program.

’APIWellNo:43047507100000’

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	September 3, 2009
WELL NAME	**NBU 921-19L**			TD	10,300' MD/TVD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	4,826'
SURFACE LOCATION	NW/4 SW/4 2,636' FSL 1,534' FWL	Sec 19	T 9S	R 21E	Lot 3	BHL	Straight Hole
	Latitude: 40.021437	Longitude: -109.599905			NAD 83		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: BLM (MINERALS), Ute Tribe (SURFACE), UDOGM, Tri-County Health Dept.						



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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2615	36.00	J-55	LTC	0.82*	1.65	4.81
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	9600	11.60	I-80	BTC	1.82	1.04	2.86
								10,690	8,650	279,000
		9600	to	10300	11.60	HCP-110	LTC	2.50	1.32	42.23

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.14

1) Max Anticipated Surf. Press.(MASP) (Surf Csg) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac grad x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.2 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 4,151 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.2 ppg) 0.62 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,417 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	2,115'	Prem cmt + 16% Gel + 10 pps gilsonite	240	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,530'	Premium Lite II + 0.25 pps celloflake +	430	40%	11.00	3.38
			5 pps gilsonite + 10% gel '+ 1% Retarder				
	TAIL	5,770'	50/50 Poz/G + 10% salt + 2% gel	1410	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint for a total of 15 bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

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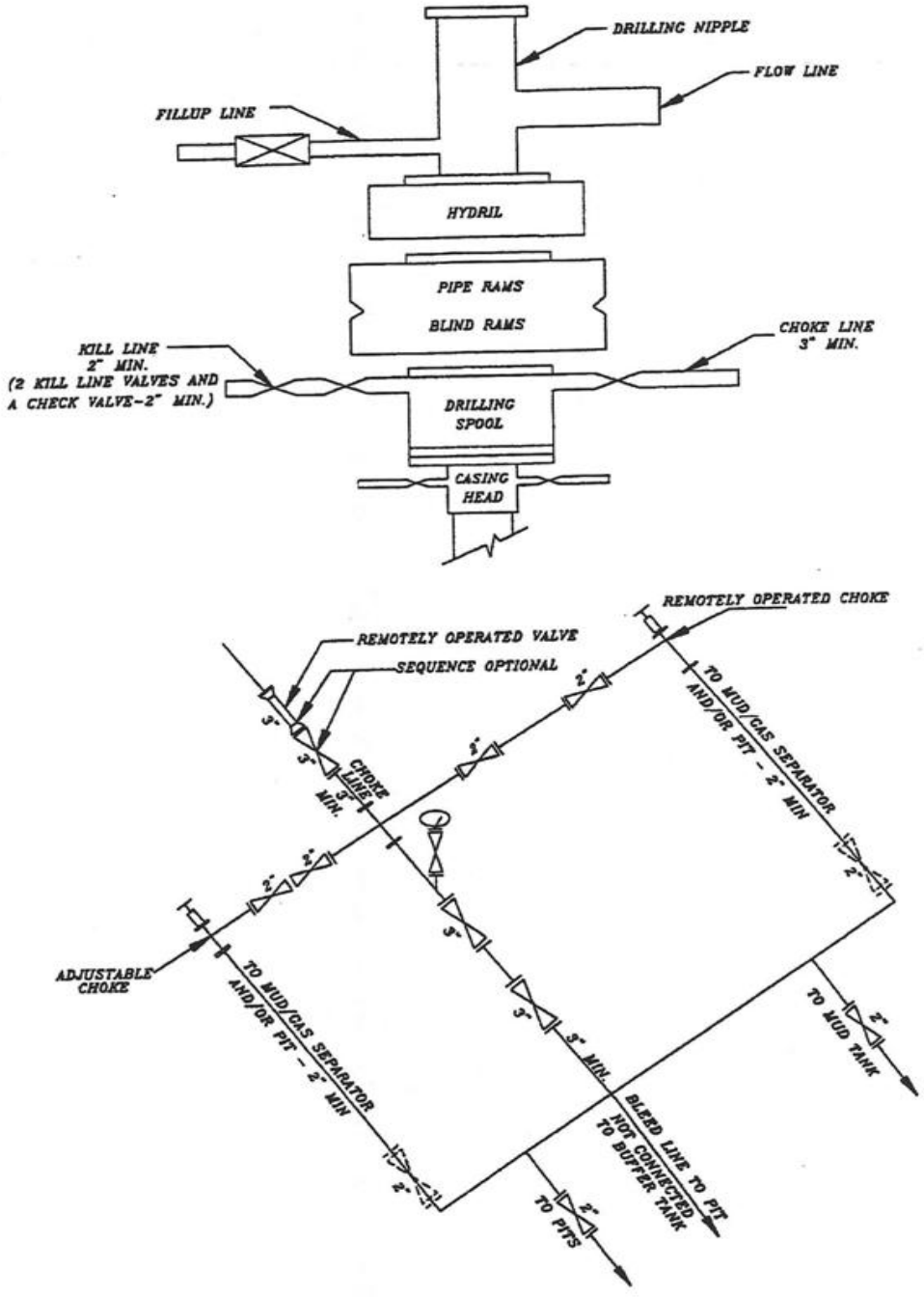
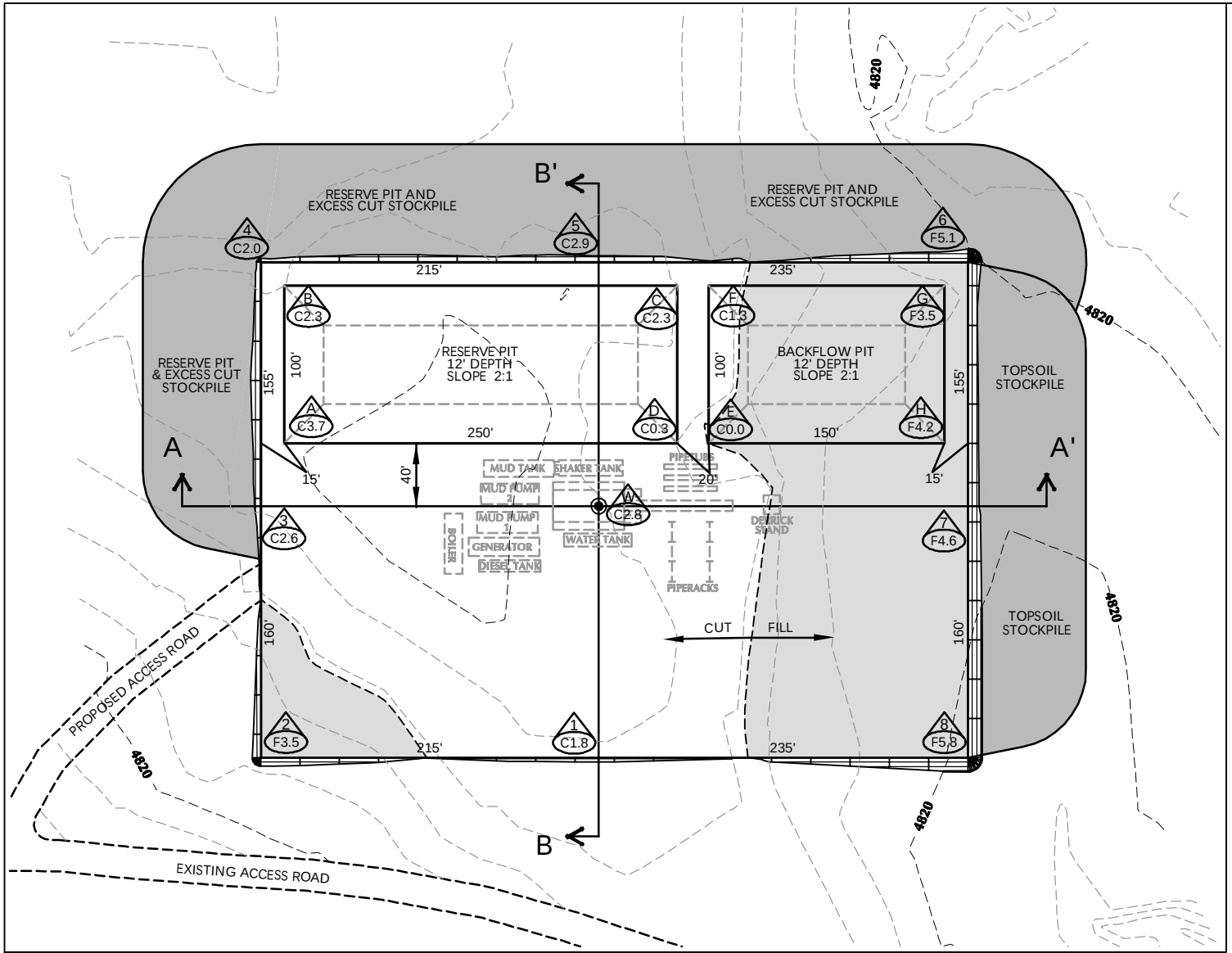
EXHIBIT A
NBU 921-19L



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



WELL PAD LEGEND

- WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

WELL PAD NBU 921-19L QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4828.5'
FINISHED GRADE ELEVATION = 4825.7'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 8,115 C.Y.
TOTAL FILL FOR WELL PAD = 7,801 C.Y.
TOPSOIL @ 6" DEPTH = 2,753 C.Y.
EXCESS MATERIAL = 314 C.Y.
TOTAL DISTURBANCE = 3.41 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 15,900 BARRELS
BACKFLOW PIT VOLUME
+/- 4,350 CY

HORIZONTAL 0 50 100 1" = 100'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-19L

WELL PAD - LOCATION LAYOUT
NBU 921-19L
2636' FSL, 1534' FWL
LOT 3 OF SECTION 19, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100' | Date: 4/14/09 | SHEET NO: 2 2 OF 9
REVISED:

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

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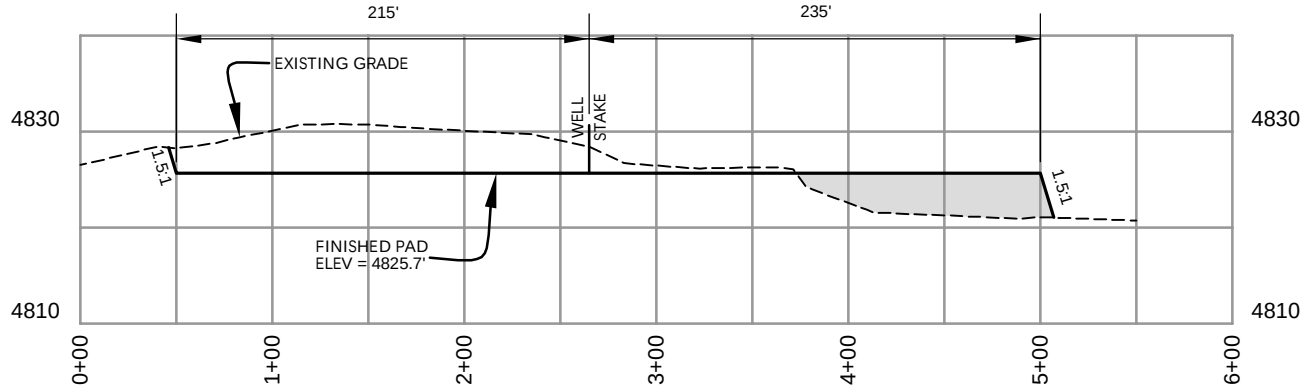
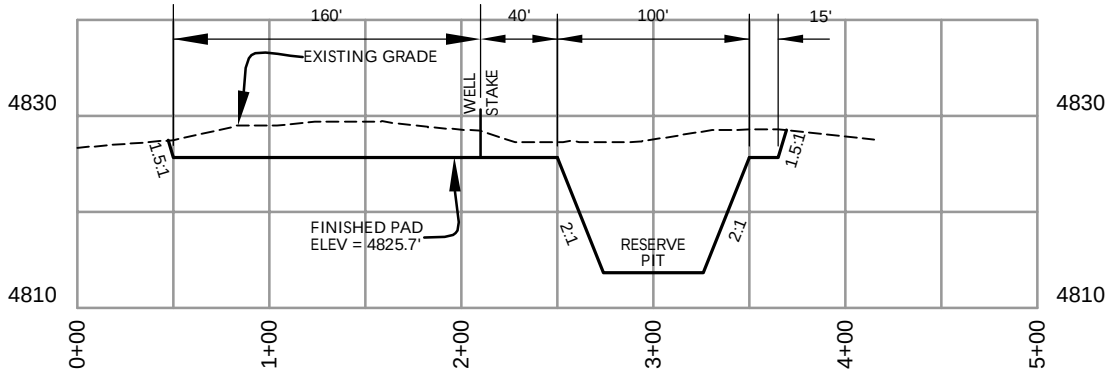


CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-19L

WELL PAD - CROSS SECTIONS
NBU 921-19L
2636' FSL, 1534' FWL
LOT 3 OF SECTION 19, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

Scale: 1"=100'	Date: 4/14/09	SHEET NO: 3 3 OF 9
REVISED:		

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209 NORTH 300 WEST - VERNAL, UTAH 84078

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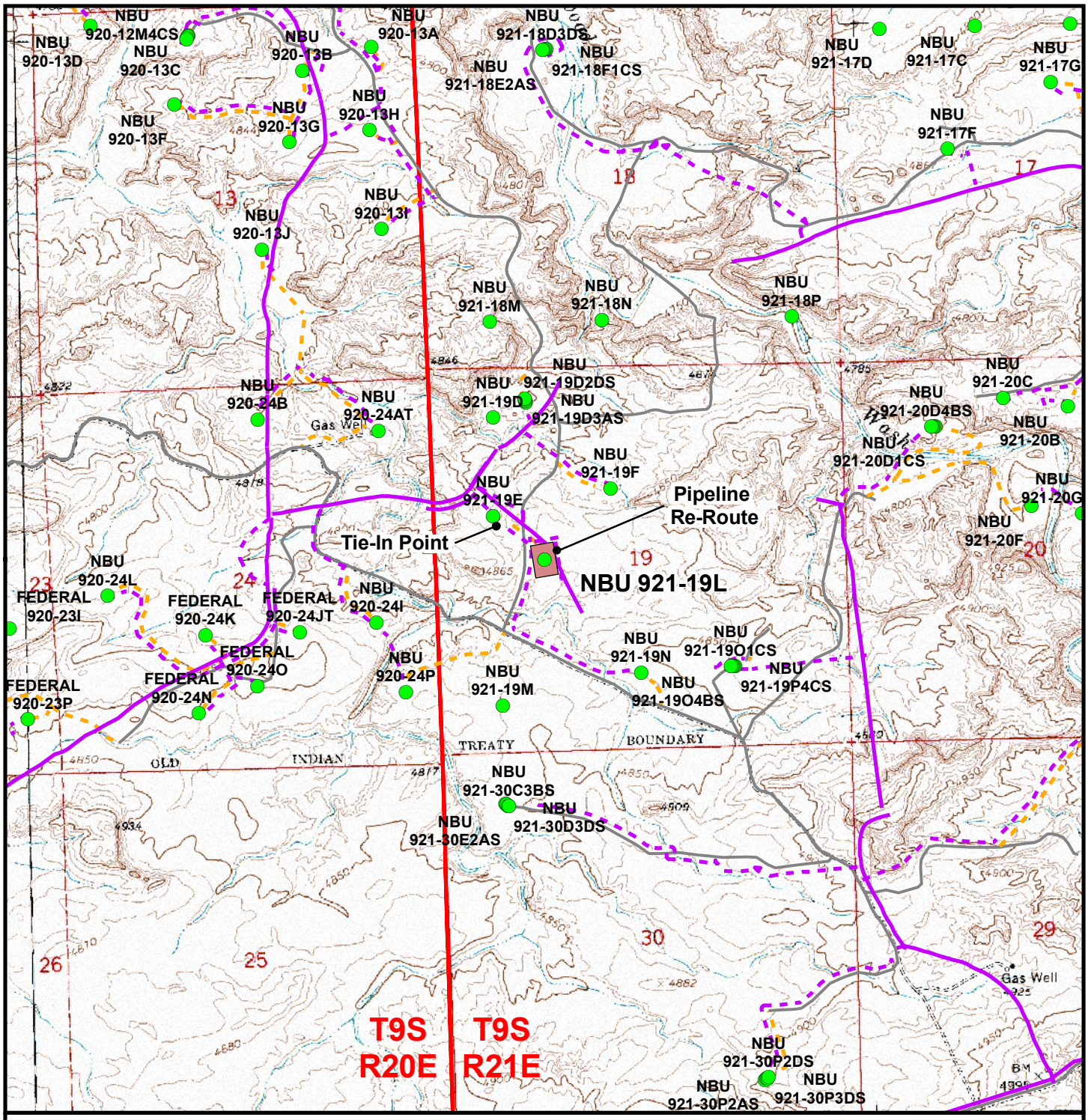

Legend

Well - Proposed | Well Pad | Pipeline - Proposed | Road - Proposed | Pipeline - Existing | Road - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±1,590ft
Proposed Pipeline Length Around Pad: ±660ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 921-19L

NBU 921-19L
Topo D
2636' FSL, 1534' FWL
Lot 3 of Section 19, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: 8	8 of 9
Drawn: JELo	Date: 13 April 2009		
Revised:	Date:		

’APIWellNo:43047507100000’

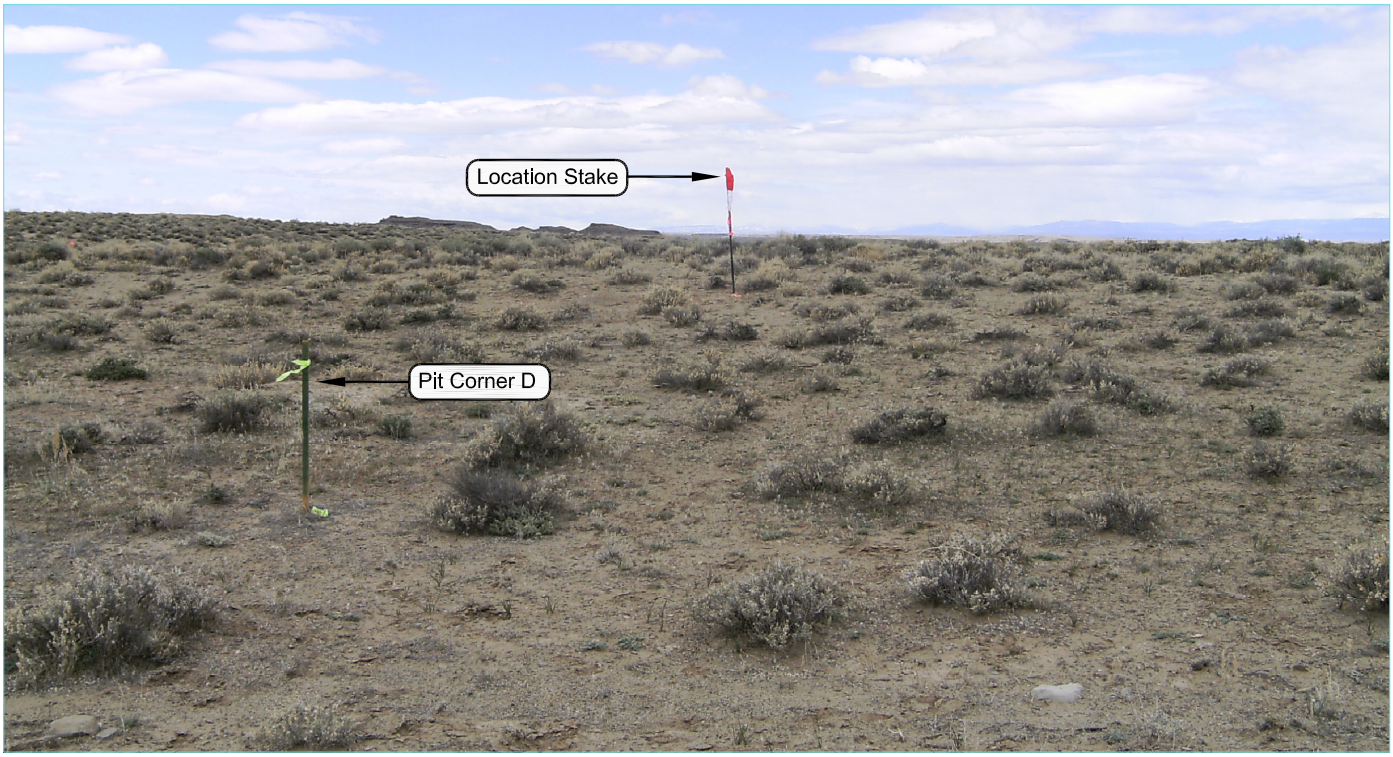

PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE CAMERA ANGLE: NORTHWESTERLY

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD CAMERA ANGLE: SOUTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

Well Pad: NBU 921-19L

NBU 921-19L
LOCATION PHOTOS
2636' FSL, 1534' FWL
LOT 3 OF SECTION 19, T9S, R21E,
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209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 04-09-09	PHOTOS TAKEN BY: B.J.S.	SHEET NO: 4
DATE DRAWN: 04-10-09	DRAWN BY: E.M.S.	4 OF 9
Date Last Revised:		

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 921-19L
WELL – NBU 921-19L
Section 19, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 5.3 MILES TO THE INTERSECTION OF A SERVICE ROAD TO THE NORTHEAST. EXIT LEFT AND PROCEED IN A NORTHEASTERLY THEN SOUTHEASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 4.4 MILES TO A SECOND SERVICE ROAD TO THE NORTH. EXIT LEFT AND PROCEED NORTHERLY ALONG THE SECOND SERVICE ROAD APPROXIMATELY 0.3 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 230 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 40.7 MILES IN A SOUTHERLY DIRECTION.

NBU 921-19L
Surface: 2,636' FSL 1,534' FWL (NW/4SW/4) Lot 3
Sec. 19 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0581

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. An NOS was submitted showing the surface location in NW/4 SW/4 of Section 19 T9S R21E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting is scheduled for September 1-3, 2009. Please contact Raleen White at 720-929-6666 for any questions.

A. Existing Roads:

A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

B. Planned Access Roads:

See MDP for additional details on road construction.
Approximately ±230' (±0.04 miles) of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

C. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

D. **Location of Existing and Proposed Facilities:**
See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.
Approximately ±2,250' (±0.43 miles) of pipeline is proposed. Refer to Topo D for the existing pipeline. Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

E. **Location and Type of Water Supply:**
See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

No water well is to be drilled on this lease.

F. **Source of Construction Materials:**
See MDP for additional details on Source of Construction Materials.

G. **Methods of Handling Waste Materials:**
See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

H. **Ancillary Facilities:**
See MDP for additional details on Ancillary Facilities.

None are anticipated.

I. **Well Site Layout:** (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

J. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

K. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
435-781-4400

L. Other Information:

See MDP for additional details on Other Information.

M. **Lessee's or Operators' Representative & Certification:**

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Kathy Schneebeck Dulnoan

September 3, 2009
Date

’APIWellNo:43047507100000’

CLASS I REVIEW OF KERR-MCGEE OIL & GAS ONSHORE LP’S 51 PROPOSED WELL LOCATIONS (T9S, R21E, SECTIONS 7, 8, 10, 11, 12, 17, 18, 19, 20, 23, 25, AND 30) IN UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-39

May 11, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A09-363

IPC #09-76

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Well Pads, Access Roads, Pipelines and Pipeline Re-Routes for "NBU #921-19E, L, M & N" (Sec. 19, T 9 S, R 21 E)

Ouray SE
Topographic Quadrangle
Uintah County, Utah

May 13, 2009

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

’APIWellNo:43047507100000’

Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237
(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report #: GCI #64

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: NBU 921-19F, NBU 921-19E, NBU 921-19L, NBU 921-19M, NBU 921-19N

Pipelines: Associated pipelines to proposed well pads

Access Roads: Associated access roads to proposed well pads

Location: Section 19, Township 9 South, Range 21 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*) and nesting raptors

Date: 06/23/2009

Observer(s): Grasslands Consulting, Inc. Biologists: Dan Hamilton, Jay Slocum, Matt Kelahan, and Jonathan Sexauer. Technicians: Chad Johnson

Weather: Partly cloudy, 75-90ºF, 0-15 mph winds with no precipitation.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

September 4, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

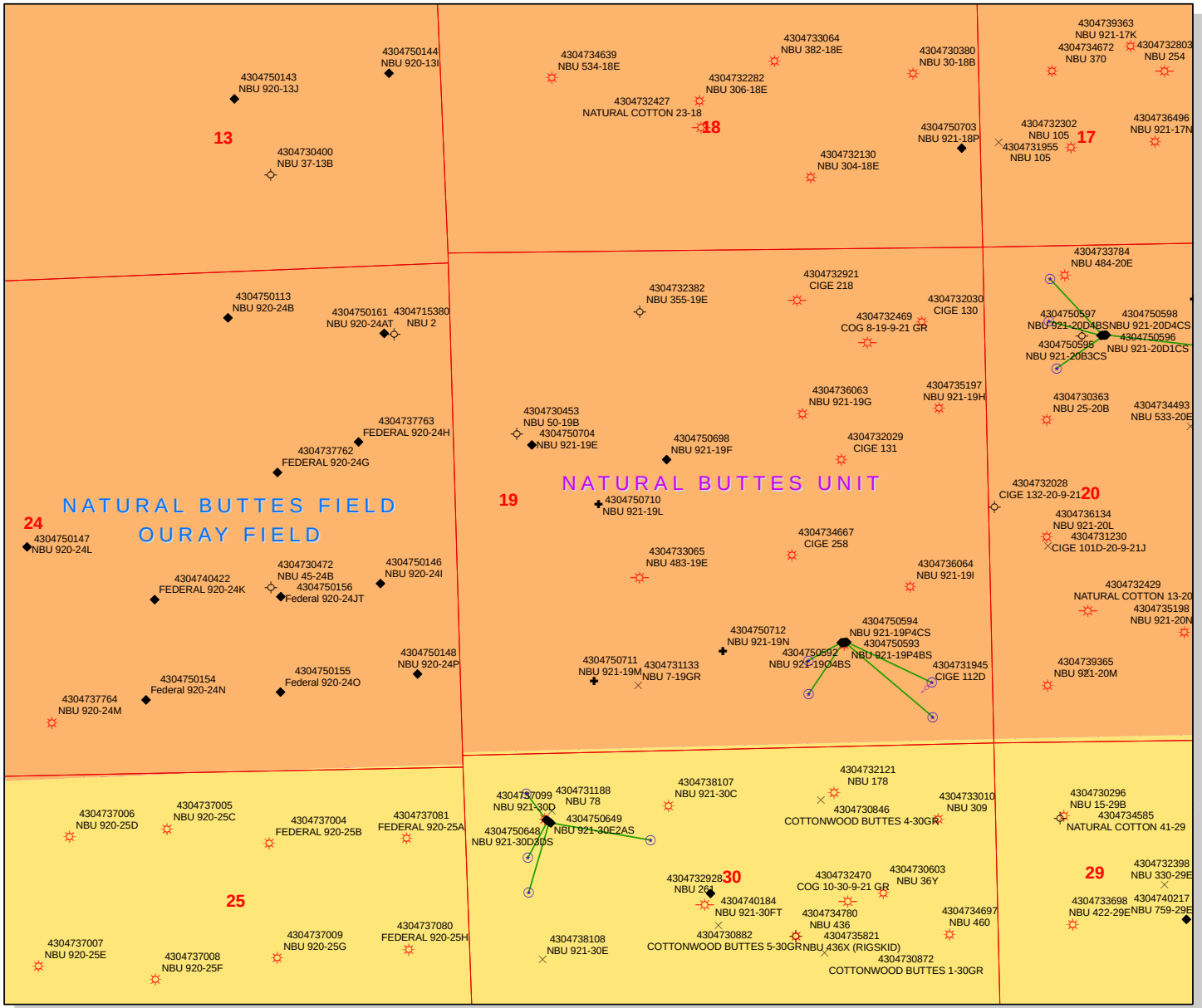
API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50710	NBU 921-19L	Sec 19 T09S R21E 2636 FSL 1534 FWL
43-047-50711	NBU 921-19M	Sec 19 T09S R21E 0735 FSL 1426 FWL
43-047-50712	NBU 921-19N	Sec 19 T09S R21E 1023 FSL 2822 FWL
43-047-50715	NBU 921-20B	Sec 20 T09S R21E 0716 FNL 2122 FEL
43-047-50717	NBU 921-20C	Sec 20 T09S R21E 0588 FNL 2261 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:9-4-09



API Number: 4304750710

Well Name: NBU 921-19L

Township 09.0 S Range 21.0 E Section 19

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED

Fields
STATUS
ACTIVE
COMBINED
Sections

Wells Query Events
<all other values>
GIS_STAT_TYPE
<Null>
APD
DRL
GI
GS
LA
NEW
OPS
PA
PGW
POW
RET
SGW
SOW
TA
TW
WD
WI
WS

1,300 650 0 1,300 Feet

1:13,307

'APIWellNo:43047507100000'

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 9/3/2009 **API NO. ASSIGNED:** 43047507100000

WELL NAME: NBU 921-19L

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWSW 19 090S 210E **Permit Tech Review:** ☑

SURFACE: 2636 FSL 1534 FWL **Engineering Review:** ☑

BOTTOM: 2636 FSL 1534 FWL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 40.02134 **LONGITUDE:** -109.59917

UTM SURF EASTINGS: 619543.00 **NORTHINGS:** 4430856.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0581 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 2 - Indian **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u bdry & uncomm. tract

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
4 - Federal Approval - dmason
17 - Oil Shale 190-5(b) - dmason

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-19L
API Well Number: 43047507100000
Lease Number: UTU 0581
Surface Owner: INDIAN
Approval Date: 9/22/2009

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

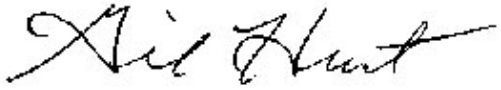
- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047507100000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-19L

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 9/21/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: September 28, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		9/20/2010

RECEIVED September 20, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources
Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047507100000

API: 43047507100000
Well Name: NBU 921-19L
Location: 2636 FSL 1534 FWL QTR NWSW SEC 19 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 9/21/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 9/20/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: September 28, 2010
By:

RECEIVED September 20, 2010

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
SEP 1 3 2009

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: UTU0581

6. If Indian, Allottee or Tribe Name:

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.: 891008900A

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.: NBU 921-19L

2. Name of Operator: KERRMCGEE OIL&GAS ONSHORE LP
Contact: DANIELLE E PIERNOT
E-Mail: Danielle.Piernot@anadarko.com

9. API Well No.: 43 047 50710

3a. Address: PO BOX 173779, DENVER, CO 80202-3779

3b. Phone No. (include area code): Ph: 720-929-6156, Fx: 720-929-7156

10. Field and Pool, or Exploratory: NATURAL BUTTES

4. Location of Well (*Report location clearly and in accordance with any State requirements.**)

At surface: NWSW Lot 3 2636FSL 1534FWL 40.02144 N Lat, 109.59991 W Lon

At proposed prod. zone: NWSW Lot 3 2636FSL 1534FWL 40.02144 N Lat, 109.59991 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area: Sec 19 T9S R21E Mer SLB

14. Distance in miles and direction from nearest town or post office*: APPROXIMATELY 10 MILES SOUTHEAST OF OURAY, UTAH

12. County or Parish: UINTAH

13. State: UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 1534 FEET

16. No. of Acres in Lease: 2399.60

17. Spacing Unit dedicated to this well:

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.: APPROXIMATELY 800 FEET

19. Proposed Depth: 10300 MD, 10300 TVD

20. BLM/BIA Bond No. on file: WYB000291

21. Elevations (Show whether DF, KB, RT, GL, etc.): 4829 GL

22. Approximate date work will start: 09/14/2009

23. Estimated duration: 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature: (Electronic Submission) — Name (Printed/Typed): DANIELLE E PIERNOT Ph: 720-929-6156 — Date: 09/03/2009

Title: REGULATORY ANALYST

Approved by (Signature): — Name (Printed/Typed): Jerry Kenczka — Date: JUN 2 1 20

Title: Assistant Field Manager Lands & Mineral Resources — Office: VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

UDOGM

Electronic Submission #73966 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 09/04/2009 ()

NOTICE OF APPROVAL

RECEIVED
JUL 11 2011
DIV. OF OIL, GAS & MINING

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional Operator Remarks:

The Ute Tribe is the surface owner of this well.

The filing fee check for this well will be submitted separately via overnight delivery on 09/07/09.

Please contact Danielle Piernot at 720-929-6156, or via e-mail at danielle.piernot@anadarko.com with any questions and/or concerns regarding this APD.

Thank you for your assistance and time on this APD.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore**	**Location:**	**Lot 3, Sec. 19, T9S, R21E**
Well No:	**NBU 921-19L**	**Lease No:**	**UTU-0581**
API No:	**43-047-50710**	**Agreement:**	**Natural Buttes Unit**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

SITE SPECIFIC COAs:

- Paint new and old (existing) facilities "Shadow Gray."
- Monitor by a permitted archaeologist during construction operations.
- Monitor by a permitted paleontologist during the construction process.
- Use pit run or gravel for well pad and access road support.
- Construct low-water crossing on access road at ephemeral drainage.
- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix D), a raptor survey will take place during raptor nesting season (January 1 through September 30) and conduct is operations according to specifications in the guidelines. The BLM and USFWS recommend a 1/4-mile avoidance buffer from active great horned owl nests from February 1 to September 30.
- Conduct a new biological survey in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus and the 2008 BLM RMP ROD, in include a 300-foot buffer from the proposed construction operations (See Appendix D) and construct operation according to agency specification and the requirements of the BO issued as a result of Section 7 USFWS consultation.

BIA Standard Conditions of Approval

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.

- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel shall refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.
- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.
- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.
- If project construction operations are scheduled to occur after December 31, 2009, KMG shall conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002. If active raptor nest are indentified during a new survey, KMG shall conduct its operations according to the seasonal restrictions detailed in the Uinta basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (See Appendix D).
- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix D).
- All personnel shall refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- A variance is granted to the operators APD request to not conduct a pressure integrity test (also known as a formation integrity test -FIT), covering 5M BOPE systems, as covered in Onshore Order #2 Drilling Operations III. B. i. "pressure integrity test of each casing shoe".

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.

- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.

- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.

- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-19L

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/22/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ SPUD REPORT Date of Spud:	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
☐ DRILLING REPORT Report Date:	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 08/22/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 8/22/2011

RECEIVED Aug. 22, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047507100000

API: 43047507100000
Well Name: NBU 921-19L
Location: 2636 FSL 1534 FWL QTR NWSW SEC 19 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 9/21/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Andy Lytle **Date:** 8/22/2011
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED Aug. 22, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-19L

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 9/26/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 09/26/2011 AT 0900 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 9/29/2011

RECEIVED Sep. 29, 2011

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 921-19L
Qtr/Qtr NWSW Section 19 Township 9S Range 21E
Lease Serial Number UTU0581
API Number 4304750710

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 09/26/2011 09:00 HRS AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

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SEP 2 3 2011
DIV. OF OIL, GAS & MINING

Date/Time 10/03/2011 08:00 HRS AM ☐ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.828.0986 OR LOVEL YOUNG AT 435.781.7051

Federal Approval of this Action is Necessary

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0581

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7.UNIT or CA AGREEMENT NAME:
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Gas Well

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KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047507100000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
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☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: FIT VARIANCE/CLOSE

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well. The operator also requests approval to use a Closed Loop drilling system if available. Please see attachement for details. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE		**DATE**
N/A		9/29/2011

RECEIVED Sep. 29, 2011

Federal Approval of this Action is Necessary

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0581

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
UTE

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-19L

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047507100000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ **NOTICE OF INTENT** Approximate date work will start: 9/29/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ **SUBSEQUENT REPORT** Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ **SPUD REPORT** Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ **DRILLING REPORT** Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: FIT VARIANCE/CLOSE

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well. The operator also requests approval to use a Closed Loop drilling system if available. Please see attachement for details. Thank you.

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 9/29/2011

RECEIVED Sep. 29, 2011

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

RECEIVED Sep. 29, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-19L

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 10/4/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON SEPT. 30, 2011. DRILLED SURFACE HOLE TO 2870'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE N/A		**DATE** 10/5/2011

RECEIVED Oct. 05, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750711	NBU 921-19M		SWSW	19	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	9/23/2011			10/14/11	
Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL ON 09/23/2011 AT 1030 HRS. BLKHK=MVRD=WSMVD							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750710	NBU 921-19L		NWSW	19	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	9/26/2011			10/14/11	
Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL ON 09/26/2011 AT 0900 HRS. WSMVD							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750777	NBU 921-8F		SENW	8	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	9/22/2011			10/14/11	
Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL ON 09/22/2011 AT 1230 HRS. WSMVD							

ACTION CODES:
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK
Name (Please Print)
Signature
REGULATORY ANALYST
Title
9/28/2011
Date

RECEIVED
OCT 03 2011
DIV. OF OIL, GAS & MINING

(5/2000)

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By KALIB FORD Phone Number 435-790-2921
Well Name/Number NBU 921-19L
Qtr/Qtr NW4, NW/4 Section ~~18~~ 19 Township 9S Range 21E
Lease Serial Number UTU0581
API Number 4304750710

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time _ _ AM ☐ PM ☐

BOPE

☒ Initial BOPE test at surface casing point
☐ Other

Date/Time 0200 10/31/2011 AM ☒ PM ☐

Rig Move
Location To:

Date/Time _ _ AM ☐ PM ☐

RECEIVED
NOV 01 2011
DIV. OF OIL, GAS & MINING

Remarks

Federal Approval of this Action is Necessary

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0581

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
UTE

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-19L

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047507100000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ **NOTICE OF INTENT** Approximate date work will start: 10/20/2011	☐ ACIDIZE	✓ ALTER CASING	☐ CASING REPAIR
☐ **SUBSEQUENT REPORT** Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
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	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ **DRILLING REPORT** Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The Operator requests approval for a change in the production casing. This change includes a switch from 4-1/2 inch I-80 11.6 LB BTC/LTC casing to 4-1/2 inch I-80 11.6 LB Ultra DQX/LTC casing. This does not deviate from previously submitted and approved plans. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 11/10/2011

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE N/A		**DATE** 10/20/2011

RECEIVED Oct. 20, 2011

Federal Approval of this Action is Necessary

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0581

SUNDRY NOTICES AND REPORTS ON WELLS

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UTE

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-19L

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047507100000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
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	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ **SPUD REPORT** Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ **DRILLING REPORT** Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The Operator requests approval for a change in the production casing. This change includes a switch from 4-1/2 inch I-80 11.6 LB BTC/LTC casing to 4-1/2 inch I-80 11.6 LB Ultra DQX/LTC casing. This does not deviate from previously submitted and approved plans. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 11/10/2011

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE N/A		**DATE** 10/20/2011

RECEIVED Oct. 20, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-19L

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 11/8/2011	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2870' TO 10,400' ON NOV. 6, 2011. RAN 4-1/2" 11.6# P-110 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER RIG 54 ON NOV. 8, 2011 @ 24:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE N/A		**DATE** 11/9/2011

RECEIVED Nov. 09, 2011

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By KALIB FORD Phone Number 435-790-2921
Well Name/Number NBU 921-19L
Qtr/Qtr NW4, NW/4 Section 19 Township 9S Range 21E
Lease Serial Number UTU0581
API Number 4304750710

Casing – Time casing run starts, not cementing times.

☒ Production Casing
☐ Other

Date/Time 11/08/11 3 AM ☒ PM ☐

BOPE

☐ Initial BOPE test at surface casing point
☐ Other

Date/Time _ _ AM ☐ PM ☐

RECEIVED
NOV 09 2011
DIV. OF OIL, GAS & MINING

Rig Move
Location To:

Date/Time _ _ AM ☐ PM ☐

Remarks

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By KALIB FORD Phone Number 435-790-2921
Well Name/Number NBU 921-19L
Qtr/Qtr NW4, NW/4 Section 19 Township 9S Range 21E
Lease Serial Number UTU0581
API Number 4304750710

Casing – Time casing run starts, not cementing times.

☒ Production Casing
☐ Other

Date/Time 11/08/11 3 AM ☒ PM ☐

BOPE

☐ Initial BOPE test at surface casing point
☐ Other

Date/Time _ _ AM ☐ PM ☐

RECEIVED
NOV 09 2011
DIV. OF OIL, GAS & MINING

Rig Move
Location To:

Date/Time _ _ AM ☐ PM ☐

Remarks

Carol Daniels - PROD CASING FOR NBU 921-19L

From: "Anadarko - Pioneer 54" <pioneer54@gesmail.net>
To: "Carol Daniels" <caroldaniels@utah.gov>
Date: 11/9/2011 5:13 AM
Subject: PROD CASING FOR NBU 921-19L
Attachments: STATE NOTICE.doc

THANK YOU,
KALIB FORD
435-790-2921

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-19L

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2636 FSL 1534 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 19 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 12/15/2011	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 12/15/2011 AT 1700 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

NAME (PLEASE PRINT) Sheila Wopsock

PHONE NUMBER 435 781-7024

TITLE Regulatory Analyst

SIGNATURE N/A

DATE 12/16/2011

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
FEB 01 2012
DIV. OF OIL, GAS & MINING

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU0581

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

2. Name of Operator KERR MCGEE OIL & GAS ONSHORE LP — Contact: JAIME L. SCHARNOWSKE — E-Mail: JAIME.SCHARNOWSKE@ANADARKO.COM

8. Lease Name and Well No. NBU 921-19L

3. Address PO BOX 173779 DENVER, CO 80217

3a. Phone No. (include area code) Ph: 720-929-6304

9. API Well No. 43-047-50710

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NWSW Lot 3 263FSL 1534FWL 40.021402 N Lat, 109.600596 W Lon

At top prod interval reported below NWSW Lot 3 263FSL 1534FWL 40.021402 N Lat, 109.600596 W Lon

At total depth NWSW Lot 3 263FSL 1534FWL 40.021402 N Lat, 109.600596 W Lon

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 19 T9S R21E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 09/26/2011

15. Date T.D. Reached 11/06/2011

16. Date Completed ☐ D & A ☒ Ready to Prod. 12/15/2011

17. Elevations (DF, KB, RT, GL)* 4826 GL

18. Total Depth: MD 10400 TVD 10396

19. Plug Back T.D.: MD 10347 TVD 10343

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/CMI/GR/CCL-RSL/SM/GR/CCL

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☒ No ☐ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
12.250	9.625 J-55	36.0	0	2889		660		0	
7.875	4.500 P-110	11.6	0	10390		1647		2714	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	9833							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	MESAVERDE	8287	10238	8287 TO 10238	0.360	192	OPEN
B)	WSMVD						
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
8287 TO 10238	PUMP 7,046 BBLS SLICK H2O & 134,921 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/15/2011	12/19/2011	24	→	0.0	2867.0	600.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	2400 SI	2877.0	→	0	2867	600		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #129344 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER	1681
				BIRD'S NEST	1933
				MAHOGANY	2429
				WASATCH	5054
				MESAVERDE	8040

32. Additional remarks (include plugging procedure):
Attached is the chronological well history, perforation report & final survey.
DQX csg was used from 19' to 5052'. LTC csg was used from 5052'-10,390'.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #129344 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal

Name *(please print)* JAIME L. SCHARNOWSKE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 01/27/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011
Project: UTAH-UINTAH	Site: NBU 921-19L	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 9/30/2011	End Date: 11/8/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/30/2011	18:00 - 0:00	6.00	MIRU	21	C	P		RIG DOWN, LOAD OUT TRUCKS, RIG MAINTENANCE, MOVE SOME LOADS TO LOCATION, WAIT ON DAYLIGHT
10/1/2011	0:00 - 6:00	6.00	MIRU	21	C	P		WAIT ON DAYLIGHT, MOVE PARTIAL LOADS
	6:00 - 10:30	4.50	MIRU	01	A	P		MOVE SHACK, MUD PUMP, FUEL TANK & RIG TO NBU 921-19L
	10:30 - 14:00	3.50	MIRU	01	B	P		MIRU ,DRESS CONDUCTOR, INSTALL BLOOIE LINE,CENTER RIG OVER HOLE,R/U & PRIME MUD PUMP & RESERVE PIT
	14:00 - 15:30	1.50	MIRU	08	A	Z		WAIT ON HOTSHOT TRUCK WITH NEW BLOOIE LINE. ATEMPT TO WELD OLD ONE. INSTALL NEW BLOOIE LINE & SEND OLD ONE IN FOR REPAIR
	15:30 - 16:00	0.50	MIRU	06	A	P		P/U 1.83 BENT HOUSING HUNTING MTR SN 8085. 7/8 LOBE .16 RPM. M/U HUGHES Q506 7016459 12.25 BIT 1ST RUN, W/ 6-18'S. INSTALL RUBBER.
	16:00 - 18:00	2.00	MIRU	02	B	P		SPUD SURFACE 10/01/2011 @ 16:00 HRS. DRILL 12 1/4" SURFACE HOLE F/40'-210' (170' @85 '/HR) PSI ON/ OFF 850/600, UP/ DOWN/ ROT 27/22/25. 532 GPM, 45 RPM ON TOP DRIVE, 15-18K WOB
	18:00 - 18:30	0.50	DRLSUR	06	A	P		TRIP OUT FOR DIR TOOLS.
	18:30 - 20:30	2.00	DRLSUR	06	A	P		TRIP IN WITH DIR TOOLS.
	20:30 - 0:00	3.50	DRLSUR	02	A	P		DRILL 12 1/4" SURFACE HOLE F/210'-590 (380' @113 '/HR) PSI ON/ OFF 920/700, UP/ DOWN/ ROT 45/41/42. 532 GPM, 40 RPM ON TOP DRIVE, 15-20K WOB
10/2/2011	0:00 - 6:00	6.00	DRLSUR	02	B	P		DRILL 12 1/4" SURFACE HOLE F/590 TO 1280 (690' @115 '/HR) PSI ON/ OFF 1330/1100, UP/ DOWN/ ROT 55/50/52. 532 GPM, 40 RPM ON TOP DRIVE, 15-20K WOB
	6:00 - 0:00	18.00	DRLSUR	02	B	P		DRILL 12 1/4" SURFACE HOLE F/1280 TO (2660' (1380'@77'/HR) PSI ON/ OFF 1790/1570, UP/ DOWN/ ROT 78/67/72. 532 GPM, 40 RPM ON TOP DRIVE, 15-20K WOB
10/3/2011	0:00 - 1:00	1.00	DRLSUR	02	B	P		DRILL 12 1/4" SURFACE HOLE F2660' T/2720' (11-'@110'/HR) PSI ON/ OFF 1790/1570, UP/ DOWN/ ROT 78/67/72. 532 GPM, 40 RPM ON TOP DRIVE, 15-20K WOB
	1:00 - 2:00	1.00	DRLSUR	08	B	Z		WORK ON PUMP
	2:00 - 6:30	4.50	DRLSUR	02	B	P		DRILL 12 1/4" SURFACE HOLE F/2720' T/ TD@2870 (11-'@110'/HR) PSI ON/ OFF 1790/1570, UP/ DOWN/ ROT 78/67/72. 532 GPM, 40 RPM ON TOP DRIVE, 15-20K WOB
	6:30 - 8:30	2.00	DRLSUR	05	A	P		CIRC & COND HOLE F/LD & 9 5/8" SURF. CSG RUN.
	8:30 - 13:30	5.00	DRLSUR	06	D	P		L/D DS,BHA & NMDC,M.M BREAK BIT. INSPECT BHA
	13:30 - 14:30	1.00	DRLSUR	12	A	P		MOVE CATWALK AND PIPE RACKS,MOVE CSG OVER TO WORK AREA,R/U T/RUN 9 5/8" 36# SURF. CSG
	14:30 - 18:00	3.50	DRLSUR	12	C	P		HOLD SAFTEY MEETING,RUN FLOAT SHOE ,SHOE JNT,BAFFLE & 69 JNTS 9 5/8" 36# LT&C CSG W/THE SHOE SET @2870' & THE BAFFLE @2825

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011
Project: UTAH-UINTAH	Site: NBU 921-19L	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 9/30/2011	End Date: 11/8/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 20:00	2.00	DRLSUR	12	A	P		RUN 200' OF 1" PIPE DN BACKSIDE, RIG DN & MOVE RIG OFF WELL
	20:00 - 22:30	2.50	DRLSUR	12	E	P		HOLD SAFETY MEETING. INSTALL CEMENT HEAD. PSI TEST TO 2000 PSI. PUMP 17 BBLS OF 8.3# H20 AHEAD. PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PUMP 260 SX(176.8 BBLS) 11# 3.82 YIELD LEAD CEMENT, PUMP 200 SX (42 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE).DROP PLUG ON FLY AND DISPLACE W/229 BBLS OF 8.3# H20. LIFT PRESSURE WAS 630 PSI, BUMP PLUG AND HOLD 1200 PSI FOR 5 MIN. FLOAT HELD,FULL RETURNS THRU OUT JOB, 45 BBL'S CMT TO SURFACE. CEMENT FELL BACK
	22:30 - 0:00	1.50	DRLSUR	12	E	P		PUMP 100 SKS DOWN 1", 20.4 BBL FELL BACK WAIT ON CEMENT UNTIL MIDNIGHT
10/4/2011	0:00 - 0:30	0.50	DRLSUR	13	A	P		PUMPED 100 BBLS DOWN BACKSIDE. CEMENT STAYED AT SURFACE. RELEASED RIG 00:30
10/29/2011	0:00 - 7:00	7.00	DRLPRO	01	E	P		RDRT
	7:00 - 19:00	12.00	DRLPRO	01	A	P		MOVE, SET IN & R/U BACKYARD, NOV & STRATA MPD
	19:00 - 0:00	5.00	DRLPRO	01	B	P		RURT, POWER, WATER DIESEL, ECT
10/30/2011	0:00 - 7:00	7.00	DRLPRO	21	C	P		WAITING FOR DAYLIGHT
	7:00 - 19:00	12.00	DRLPRO	01	B	P		RURT BACKYARD ON NEW LOC, R/D & SLIT DERRICK, SUBS, MATS & MOVE TO NEW LOC, R/U MATS, SUBS, PUT DERRICK BACK TOGETHER, R/U NOV & STRATA, RAISED DERRICK, TUCKS LEFT@1700, CRANES LEFT@1800
	19:00 - 0:00	5.00	DRLPRO	01	B	P		STRING DERRICK LINES,FLOW LINE, CHOKE LINE, FLARE LINES
10/31/2011	0:00 - 2:00	2.00	DRLPRO	14	A	P		N/U BOPE
	2:00 - 8:30	6.50	DRLPRO	15	A	P		TEST BOPE, RAMS & ALL VALVES 250 LOW-5000 HIGH, ANN 2500, CASING 1500 F/ 30 MIN'S, STRATA 250-3000
	8:30 - 9:00	0.50	DRLPRO	14	B	P		INSTALL WEAR BUSHING, PRE-SPUD INSPECTION
	9:00 - 14:30	5.50	DRLPRO	06	A	P		P/U BIT #1, MM, DIR TOOLS & SCRIBE, BHA, D/P TO TOP OF CEMENT @ 2782", INSTALLED ROT RUBBER
	14:30 - 16:00	1.50	DRLPRO	02	F	P		DRLG CEMENT, F/E & OPEN HOLE TO 2889', FLOAT @ 2832',SHOE @ 2886'
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRLG F/2889' TO 3780', 891' @ 111.4' PH WOB / 16-19, RPM 60 SPM 180 - GPM 527 MW 8.4, VIS 34 NOV ON CONVENTIONAL TRQ ON/OFF = 3-5 K PSI ON /OFF = 900-1150 , DIFF 150-300 PU/SO/RT = 120-105-114 SLIDE = 77' IN 1.58 HRS = 48.73' PH ROT = 814' IN 6.42 HRS = 126.79' PH STRATA OFF LINE 0 CONN FLARE, 10 B/G FLARE 14.6' N and 1.5' W OF TARGET CENTER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011
Project: UTAH-UINTAH	Site: NBU 921-19L	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 9/30/2011	End Date: 11/8/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/1/2011	0:00 - 16:00	16.00	DRLPRO	02	D	P		DRLG F/3780' TO 5413', 1633' @ 102' PH WOB / 16-19, RPM 60 SPM 180 - GPM 527 MW 8.8, VIS 36 NOV ON CONVENTIONAL TRQ ON/OFF = 3-5 K PSI ON /OFF = 900-1150 , DIFF 150-300 PU/SO/RT = 120-105-114 SLIDE = 129' IN 2.41 HRS = 53.53' PH ROT = 1504' IN HRS = 110.67' PH STRATA OFF LINE 0 CONN FLARE, 10 B/G FLARE 68' N and 8' W OF TARGET CENTER
	16:00 - 16:30	0.50	DRLPRO	07	A	P		SERVICE RIG, F/T ANN & HCR, BOP DRLG 72 SEC, CHECK RIG F/ LEVEL, OK
	16:30 - 0:00	7.50	DRLPRO	02	D	P		DRLG F/5413' TO 6190', 777' @ 103.6' PH WOB / 19-20, RPM 60 SPM 180 - GPM 527 MW 9.0, VIS 37 NOV ON CONVENTIONAL TRQ ON/OFF = 3-5 K PSI ON /OFF = 1255-1400 , DIFF 150-350 PU/SO/RT = 158-135-150 SLIDE = 55' IN 1.08 HRS = 48.73' PH ROT = 722' IN 6.42 HRS = 112.46' PH STRATA OFF LINE 0 CONN FLARE, 10 B/G FLARE 80.3' N and 20.3' W OF TARGET CENTER
11/2/2011	0:00 - 17:30	17.50	DRLPRO	02	D	P		DRLG F/ 6190' TO 7314', 1124' @ 64.23' PH WOB / 20-22, RPM 60 SPM 180 - GPM 527 MW 9.0, VIS 40 NOV ON CONVENTIONAL TRQ ON/OFF = 4-6 K PSI ON /OFF = 1300-1500 , DIFF 100-350 PU/SO/RT = 158-135-150 SLIDE = 18' IN 0.67 HRS = 26.86' PH ROT = 1106 ' IN 16.83 HRS = 65.71' PH STRATA OFF LINE 0 CONN FLARE, 10 B/G FLARE 78' N and 30' W OF TARGET CENTER
	17:30 - 18:00	0.50	DRLPRO	07	A	P		SERVICE RIG, F/T ANN & HCR
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRLG F/ 7314' TO 7540', 226' @ 37.6' PH WOB / 20-22, RPM 35-55 SPM 180 - GPM 527 MW 9.0, VIS 40 NOV ON CONVENTIONAL TRQ ON/OFF = 4-6 K PSI ON /OFF = 1440-1600 , DIFF 100-350 PU/SO/RT = 180-160-173 SLIDE = ROT = 100% STRATA OFF LINE 0 CONN FLARE, 10 B/G FLARE 78' N and 30' W OF TARGET CENTER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011	
Project: UTAH-UINTAH	Site: NBU 921-19L		Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 9/30/2011		End Date: 11/8/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/3/2011	0:00 - 15:30	15.50	DRLPRO	02	D	P		DRLG F/ 7540' TO 8168', 628' @ 41.9' PH WOB / 20-22, RPM 35-55 SPM 180 - GPM 527 MW 9.0, VIS 40 NOV ON CONVENTIONAL TRQ ON/OFF = 4-6 K PSI ON /OFF = 1440-1600 , DIFF 100-350 PU/SO/RT = 180-160-173 SLIDE = ROT = 100% STRATA OFF LINE 0 CONN FLARE, 10 B/G FLARE 78' N and 30' W OF TARGET CENTER
	15:30 - 16:00	0.50	DRLPRO	07	A	P		SERVICE RIG, F/T ANN & HCR, BOP DRLG 70 SEC, CHECK RIG F/ LEVEL
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRLG F/ 8168' TO 8515', 347' @ 43.4' PH WOB / 21-23, RPM 60 SPM 200 - GPM 586 MW 9.0, VIS 36 NOV ON CONVENTIONAL TRQ ON/OFF = 7-9 K PSI ON /OFF = 1500-1750 , DIFF 100-350 PU/SO/RT = 195-160-184 SLIDE = ROT = 100% STRATA ON LINE AP 225 DRLG, 380 CONN 15 CONN FLARE, 5-10 B/G FLARE 45' N & 15' W OF TARGET CENTER
11/4/2011	0:00 - 9:30	9.50	DRLPRO	02	D	P		DRLG F/ 8515' TO 8960', 445' @ 46.8' PH WOB / 21-23, RPM 60 SPM 200 - GPM 586 MW 9.0, VIS 36 NOV ON CONVENTIONAL TRQ ON/OFF = 7-9 K PSI ON /OFF = 1500-1750 , DIFF 100-350 PU/SO/RT = 195-160-184 SLIDE = ROT = 100% STRATA ON LINE AP 225 DRLG, 380 CONN 15 CONN FLARE, 5-10 B/G FLARE 45' N & 15' W OF TARGET CENTER
	9:30 - 13:00	3.50	DRLPRO	22	N	X		ANN PRESSURE GREW TO 400 PSI AND CAP ON STRATAS FLOW SENSOR BLEW. WELL WAS SHUT IN AND THEN GOTTEN UNDER CONTROL USING THE WEIGHT AND WAIT KILL METHOD. SIDPP 1955, SICP 2355, KILL WT 11.4.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011
Project: UTAH-UINTAH	Site: NBU 921-19L	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 9/30/2011	End Date: 11/8/2011
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:00 - 15:30	2.50	DRLPRO	02	D	P		DRLG F/ 8960' TO 9116 ', 156' @ 62.4' PH WOB / 21-23, RPM 60 SPM 180 - GPM 527 MW 10.5, VIS 40 NOV OFF TRQ ON/OFF = 9-10 K PSI ON /OFF = 1900-2075 , DIFF 100-350 PU/SO/RT = 215-175-195 SLIDE = ROT = 100% STRATA ON LINE AP 100 DRLG, 150 CONN 5 CONN FLARE, 0-5 B/G FLARE 22' N & 3' W OF TARGET CENTER
	15:30 - 16:00	0.50	DRLPRO	07	A	P		SERVICE RIG, CHECK RIG F/ LEVEL
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRLG F/ 9116' TO 9485', 369' @ 46.1' PH WOB / 21-23, RPM 60 SPM 180 - GPM 527 MW 10.5, VIS 40 NOV OFF TRQ ON/OFF = 9-10 K PSI ON /OFF = 1900-2075 , DIFF 100-350 PU/SO/RT = 215-175-195 SLIDE = ROT = 100% STRATA ON LINE AP 100 DRLG, 150 CONN 5 CONN FLARE, 0-5 B/G FLARE 22' N & 3' W OF TARGET CENTER
11/5/2011	0:00 - 13:00	13.00	DRLPRO	02	D	P		DRLG F/ 9485' TO 9930', 445' @ 34.2' PH WOB / 21-23, RPM 60 SPM 180 - GPM 527 MW 10.5, VIS 40 NOV OFF TRQ ON/OFF = 9-10 K PSI ON /OFF = 1900-2075 , DIFF 100-350 PU/SO/RT = 215-175-195 SLIDE = ROT = 100% STRATA ON LINE AP 100 DRLG, 150 CONN 5 CONN FLARE, 0-5 B/G FLARE 15' N AND 35' E OF TARGET CENTER
	13:00 - 13:30	0.50	DRLPRO	08	B	Z		LINER WASHER MALFUNCTION, X/O LINERS AND SWABS

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011
Project: UTAH-UINTAH	Site: NBU 921-19L	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 9/30/2011	End Date: 11/8/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:30 - 16:00	2.50	DRLPRO	02	D	P		DRLG F/ 9930' TO 9970', 40' @ 16' PH WOB / 15, RPM 45 SPM 120 - GPM 351 MW 10.5, VIS 40 NOV OFF TRQ ON/OFF = 9-10 K PSI ON /OFF = 1900-2075 , DIFF 100 PU/SO/RT = 215-175-195 SLIDE = ROT = 100% STRATA ON LINE AP 100 DRLG, 150 CONN 5 CONN FLARE, 0-5 B/G FLARE 15' N AND 35' E OF TARGET CENTER
	16:00 - 16:30	0.50	DRLPRO	07	A	P		SERVICE RIG, F/T ANN & HCR, BOP DRLG 70 SEC, CHECK RIG F/ LEVEL
	16:30 - 0:00	7.50	DRLPRO	02	D	P		DRLG F/ 9970' TO 10180', 210' @ 28' PH WOB / 22-25, RPM 45-60 SPM 200 - GPM 351 MW 11, VIS 45 NOV OFF TRQ ON/OFF = 9-10 K PSI ON /OFF = 2580-2740 , DIFF 100-350 PU/SO/RT = 225-170-198 SLIDE = ROT = 100% STRATA ON LINE AP 150 DRLG, 200 CONN 20' CONN FLARE, 5'-15' B/G FLARE 15' N AND 35' E OF TARGET CENTER
11/6/2011	0:00 - 7:30	8.50	DRLPRO	02	D	P		DRLG F/ 10180' TO 10400', 220' @ 25.9' PH WOB / 22-25, RPM 45-60 SPM 200 - GPM 586 MW 11.3, VIS 45 NOV OFF TRQ ON/OFF = 9-10 K PSI ON /OFF = 2580-2740 , DIFF 100-350 PU/SO/RT = 225-170-198 SLIDE = ROT = 100% STRATA ON LINE AP 150 DRLG, 200 CONN 20' CONN FLARE, 5'-15' B/G FLARE 15' N AND 35' E OF TARGET CENTER
	7:30 - 9:30	2.00	DRLPRO	05	C	P		HIGH VIS SWEEP, CONDITION MUD
	9:30 - 16:00	6.50	DRLPRO	06	E	P		WIPER TRIP TO SHOE AND BACK
	16:00 - 18:00	2.00	DRLPRO	05	C	P		HIGH VIS SWEEP, CIRC 2 BTMS UP
	18:00 - 22:30	4.50	DRLPRO	06	A	P		POOH FOR LOGS
	22:30 - 0:00	1.50	DRLPRO	11	D	P		R/U LOGS, SAFETY MEETING RUN LOGS
11/7/2011	0:00 - 1:00	1.00	DRLPRO	11	D	P		LOGS BRIDGED OUT @ 4370, R/D
	1:00 - 8:30	7.50	DRLPRO	06	F	P		WIPE AND REAM TROUBLE SPOT
	8:30 - 10:00	1.50	DRLPRO	11	D	P		R/U LOGS, BRIDGED OUT @ 4496 R/D
	10:00 - 16:00	6.00	DRLPRO	06	A	P		TIH TO L/D DP
	16:00 - 17:30	1.50	DRLPRO	05	C	P		HIGH VIS SWEEP, PUMP PILL

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011	
Project: UTAH-UINTAH	Site: NBU 921-19L		Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 9/30/2011		End Date: 11/8/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	17:30 - 0:00	6.50	DRLPRO	06	A	P		L/D DP
11/8/2011	0:00 - 2:30	2.50	DRLPRO	06	A	P		POOH, L/D DIR TOOLS & BIT
	2:30 - 3:00	0.50	DRLPRO	14	B	P		PULL WEAR BUSHING
	3:00 - 11:30	8.50	DRLPRO	12	C	P		RUN PROD CASING 4.5" P-110, LTC & DQX, 256 JTS SHOE @ 10,389' FLOAT @ 10,347' MESA MARKER @ 8,162' WASATCH MARKER @ 5056'
	11:30 - 13:00	1.50	DRLPRO	05	D	P		CIRC OUT GAS TO CEMENT
	13:00 - 16:30	3.50	DRLPRO	12	E	P		HPJSM W/ RIG & BJ CEMENTERS, PSI TEST LINES TO 5135, DROP BTM PLUG, PUMP 28 BBLS WEIGHTED SPACER, LEAD 547 SKS 12.6 PPG 1.94 YLD, TAIL 1100 SKS 14.3 PPG, 1.31 YLD, DROP TOP PLUG & DISPLACE W/ 150 BBLS CLAYCARE WATER, FULL RETURNS THOUGHOUT JOB, W/ 25 BBLS TO PIT
	16:30 - 17:00	0.50	DRLPRO	14	B	P		SET C-22 SLIPS W/ 120K
	17:00 - 0:00	7.00	DRLPRO	14	A	P		N/D, P/U STACK & MAKE ROUGH CUT, PREPARE RIG F/ RIG MOVE, RELEASE RIG TO THE NBU 921-25C MW1 @ 00:00 11/09/11

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-19L	**Wellbore No.**	OH
Well Name	NBU 921-19L	**Wellbore Name**	NBU 921-19L
Report No.	1	**Report Date**	12/2/2011
Project	UTAH-UINTAH	**Site**	NBU 921-19L
Rig Name/No.		**Event**	COMPLETION
Start Date	12/2/2011	**End Date**	12/15/2011
Spud Date	10/1/2011	**Active Datum**	RKB @4,845.00usft (above Mean Sea Level)
UWI	NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0		

1.3 General

Contractor	JW WIRELINE	**Job Method**	PERFORATE	**Supervisor**	STEVE WALL, SR.
Perforated Assembly	PRODUCTION CASING	**Conveyed Method**	WIRELINE		

1.4 Initial Conditions

Fluid Type		**Fluid Density**	
Surface Press		**Estimate Res Press**	
TVD Fluid Top		**Fluid Head**	
Hydrostatic Press		**Press Difference**	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	8,287.0 (usft)-10,238.0 (us	**Start Date/Time**	12/7/2011 12:00AM
No. of Intervals	47	**End Date/Time**	12/10/2011 12:00AM
Total Shots	0	**Net Perforation Interval**	62.00 (usft)
Avg Shot Density	0.00 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/10/2011 12:00AM	MESAVERDE/			8,287.0	8,288.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/10/2011 12:00AM	MESAVERDE/			8,306.0	8,307.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,321.0	8,322.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,348.0	8,350.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,383.0	8,384.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,434.0	8,435.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,459.0	8,460.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,532.0	8,533.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,578.0	8,579.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,609.0	8,611.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,686.0	8,687.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,696.0	8,697.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,774.0	8,775.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,849.0	8,851.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,890.0	8,891.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/10/2011 12:00AM	MESAVERDE/			8,933.0	8,935.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,975.0	8,976.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			8,987.0	8,988.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,049.0	9,051.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,158.0	9,161.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,198.0	9,200.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,260.0	9,261.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,346.0	9,347.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,366.0	9,367.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,433.0	9,434.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,479.0	9,481.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,506.0	9,508.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/10/2011 12:00AM	MESAVERDE/			9,547.0	9,548.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,590.0	9,591.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,677.0	9,678.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/9/2011 12:00AM	MESAVERDE/			9,699.0	9,700.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,725.0	9,726.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,737.0	9,738.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,746.0	9,747.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,769.0	9,770.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,808.0	9,809.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,869.0	9,871.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,886.0	9,887.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,906.0	9,908.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,911.0	9,912.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			9,987.0	9,988.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/9/2011 12:00AM	MESAVERDE/			10,047.0	10,048.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/7/2011 12:00AM	MESAVERDE/			10,122.0	10,124.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/7/2011 12:00AM	MESAVERDE/			10,140.0	10,141.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/7/2011 12:00AM	MESAVERDE/			10,184.0	10,185.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/7/2011 12:00AM	MESAVERDE/			10,205.0	10,207.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/7/2011 12:00AM	MESAVERDE/			10,236.0	10,238.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

3 Plots

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011	
Project: UTAH-UINTAH	Site: NBU 921-19L		Rig Name No:
Event: COMPLETION	Start Date: 12/2/2011		End Date: 12/15/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/5/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, MOVING EQUIP ON SLICK ROADS
	7:30 - 17:00	9.50	COMP	31	I	P		MIRU F/ BONANZA 1023-8L PAD TRUCK W/ EQUIP GOT HELD UP IN ROAD BLOCK ON 7 SISTERS ROAD, ND WH NU BOPS, RU FLOOR & TBG EQUIP. TALLY & PU 37/8 BIT & 128 JTS 23/8 L-80 OFF FLOAT EOT @ 4025' SWI SDFN.
12/6/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, WORKING IN COLD CONDITIONS.
	7:30 - 15:00	7.50	COMP	31	I	P		PU REM 78 JTS 23/8 L-80 TOTAL 206 , JTS IN. EOT @ 6555 ' POOH L/D BIT. ND BOPS NU FV, RU B&C TEST CSG TO 1,000 PSI FOR 15 MIN LOST 32 PSI, TEST TO 3500 PSI FOR 15 MIN LOST 28 PSI, TEST TO 9,000 PSI FOR 15 MIN LOST 67 PSI, RD B&C PREP TO PERF IN AM.
12/7/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, RIGGING UP WIRE LINE.
	7:30 - 15:00	7.50	COMP	34	H	P		RU JW RIH W/ 31/8 EXP, 23 GRM, .36" HOLES GNS & PERF 1ST STG AS OF PROCEDURE, POOH PREP TO FRAC IN AM. SDFD
12/9/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, WORKING W/ WIRELINE & FRAC CREW.
	7:30 - 10:50	3.33	COMP	36	E	P		RU SUPERIOR, PRIME PUMPS & LINES.TEST LINE TO 8,000 PSI, SET KICK OUT ON 2 TRKS TO 7400, 4 TRKS TO 7200, SET POPOFF @ 7650 PSI.
	10:50 - 11:36	0.77	COMP	36	E	P		(STG #1) WHP 2160 PSI, BRK 2219 PSI @ 3.7 BPM. ISIP 2871 PSI, FG .72. SPOT ACID ON PERFS, SHUT DWN LET SOAK FOR 5 MIN. CALC HOLES OPEN @ 45.4 BPM @ 5944 PSI = 76% HOLES OPEN. MP 6171 PSI, MR 51.4 BPM, AP 6069 PSI, AR 51.1 BPM ISIP 3219 PSI, FG .75 NPI 348 PSI
	11:36 - 13:41	2.08	COMP	36	E	P		(STG #2) PU 41/2 HAL 8-K CBP & 31/8 EXP 23 GRM .36" HLS, 120 DEG PHASING, SET CBP @ 10,078', PERF WELL AS OF PROCEDURE. WHP 3145 PSI, BRK 3295 PSI @ 3.6 BPM. ISIP 3102 PSI, FG .75. CALC HOLES OPEN @ 41.7 BPM @ 5830 PSI = 74% HOLES OPEN. MP 6217 PSI, MR 51 BPM, AP 5920 PSI, AR 47.2 BPM ISIP 3219 PSI, FG .76 NPI 117 PSI.
	13:41 - 16:00	2.32	COMP	36	E	P		(STG #3) PU 41/2 HAL 8-K CBP & 31/8 EXP 23 GRM .36" HLS, 120 DEG PHASING, SET CBP @ 9839', PERF WELL AS OF PROCEDURE. LOST 2 TRUCKS ELECTRICAL, SWI SDFN
12/10/2011	6:00 - 6:51	0.85	COMP	36	E	P		HSM, WATCHING PSI IN COLD WEATHER, (STG #3) WHP 2522 PSI, BRK 3295 PSI @ 2.7 BPM. ISIP 2959 PSI, FG .74. CALC HOLES OPEN @ 41.6 BPM @ 6958 PSI = 61% HOLES OPEN. MP 7047 PSI, MR 51.8 BPM, AP 6156 PSI, AR 51.8 BPM ISIP 3476 PSI, FG .80 NPI 517 PSI.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011
Project: UTAH-UINTAH	Site: NBU 921-19L	Rig Name No:
Event: COMPLETION	Start Date: 12/2/2011	End Date: 12/15/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:51 - 8:47	1.93	COMP	36	E	P		(STG #4) PU 41/2 HAL 8-K CBP & 31/8 EXP 23 GRM .36" HLS, 120 DEG PHASING, SET CBP @ 9578', PERF WELL AS OF PROCEDURE. WHP 2060 PSI, BRK 2921 PSI @ 3.1 BPM. ISIP 2549 PSI, FG .71. CALC HOLES OPEN @ 48.6 BPM @ 6166 PSI = 89% HOLES OPEN. MP 6313 PSI, MR 49.8 BPM, AP 5704 PSI, AR 47.8 BPM ISIP 3012 PSI, FG .76 NPI 463 PSI.
	8:47 - 10:36	1.82	COMP	36	E	P		(STG #5) PU 41/2 HAL 8-K CBP & 31/8 EXP 23 GRM .36" HLS, 120 DEG PHASING, SET CBP @ 9291', PERF WELL AS OF PROCEDURE. WHP 2330 PSI, BRK 3614 PSI @ 3.5 BPM. ISIP 3018 PSI, FG .77. CALC HOLES OPEN @ 37.7 BPM @ 6341 PSI = 60% HOLES OPEN. MP 6950 PSI, MR 51.0 BPM, AP 6201 PSI, AR 43.3 BPM ISIP 3202 PSI, FG .79 NPI 184 PSI.
	10:36 - 12:06	1.50	COMP	36	E	P		(STG # 6) PU 41/2 HAL 8-K CBP & 31/8 EXP 23 GRM .36" HLS, 120 DEG PHASING, SET CBP @ 9018', PERF WELL AS OF PROCEDURE. WHP 2293 PSI, BRK 2997 PSI @ 2.8 BPM. ISIP 2603 PSI, FG .73. CALC HOLES OPEN @ 42.5 BPM @ 5614 PSI = 67% HOLES OPEN. MP 5895 PSI, MR 48.9 BPM, AP 5365 PSI, AR 48.5 BPM ISIP 3013 PSI, FG .78 NPI 410 PSI.
	12:06 - 13:22	1.27	COMP	36	E	P		(STG # 7) PU 41/2 HAL 8-K CBP & 31/8 EXP 23 GRM .36" HLS, 90 DEG PHASING, SET CBP @ 8727', PERF WELL AS OF PROCEDURE. (PLUG GOT HUNG IN LUB HAD TO CHANGE OUT.) WHP 2294 PSI, BRK 2849 PSI @ 3.1 BPM. ISIP 2556 PSI, FG .74. CALC HOLES OPEN @ 39.5 BPM @ 6648 PSI = 66% HOLES OPEN. MP 6840 PSI, MR 48.9 BPM, AP 6005 PSI, AR 45.7 BPM ISIP 3138 PSI, FG .80 NPI 582 PSI.
	13:22 - 15:12	1.83	COMP	36	E	P		(STG # 8) PU 41/2 HAL 8-K CBP & 31/8 EXP 23 GRM .36" HLS, 120 DEG PHASING, SET CBP @ 8490', PERF WELL AS OF PROCEDURE. WHP 2106 PSI, BRK 2292 PSI @ 3.6 BPM. ISIP 2401 PSI, FG .73. CALC HOLES OPEN @ 45.2 BPM @ 5307 PSI = 74% HOLES OPEN. MP 5428 PSI, MR 50.8 BPM, AP 5147 PSI, AR 49.8 BPM ISIP 2383 PSI, FG .78 NPI 432 PSI. TOTAL 134,921 LBS 30/50 OTTAWA SAND TOTAL 7406 BBLS WTR TOTAL 757 GALS SCALE INH TOTAL 199 GALS BIOCIDE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011	
Project: UTAH-UINTAH	Site: NBU 921-19L		Rig Name No:
Event: COMPLETION	Start Date: 12/2/2011		End Date: 12/15/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:12 - 17:00	1.80	COMP	34	I	P		(KILL PLUG) RIH W/ 41/2 8-K CBP & SET @ 8270' POOH SWI, RD WIRE LINE & FRAC CREW.SDFWE
12/12/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, WORKING WITH WIRELINE
	7:30 - 9:30	2.00	COMP	34	H	P		ND FV, NU BOPS, RU FLOOR, TEST CSG TO 3500 PSI FOR 15 MIN, GOOD TEST. RU JW WIRELINE, RIH W/ 31/8 .23 GRM, .36" HLS PERF F/ 3010-3011 6 SPF, 6HLS. POOH RD WL.
	9:30 - 13:30	4.00	COMP	51	B	P		PU & RIH W/ 41/2" CCR & 84 JTS 23/8 L-80,SET CCR @ 2684' TEST TUBING TO 1500 PSI OK. PRESSURE UP ON CSG TO 500 PSI, PUMP 3 BBLS FRESH, 225 SKS CLASS G 1.15 YIELD 15.8 LBS CMT, PUMPED 2 BBLS FRESH STAGED CMT TO 2800 PSI. UNSTING OUT OF RET, REV TBG 11/2 TBG VOLUME.
	13:30 - 16:00	2.50	COMP	31	I	P		RD PRO PETRO, POOH W/ 84 JTS L/D STINGER, PU RIH W/ 43/4 BIT & 74 JTS, EOT @ 2366' PREP TO D/O IN AM, SWI DRAIN EQUIPMENT, SDFN.
12/13/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, WORKING W/ RIG PUMP.
	7:30 - 18:00	10.50	COMP	44	B	P		RIH TAG UP ON CCR, R/U DRILLING EQUIPMENT, BROKE CIRC REV, DRILL OUT CCR @ 2684' TOOK 3 HRS, & CMT FROM 2686' TO 2902' 222'CMT TODAY, SWI DRAIN EQUIP SDFN.
12/14/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, MAKING CONNECTIONS W/ PWR SWIVEL, BRK CIRC REV,
	7:30 - 14:30	7.00	COMP	44	A	P		CONTINUE TO D/O CMTF/ 2902' TO 3065' DISPLACE CMT WTR W/ CLEAN WTR, TEST CSG & SQUEEZE TO 3500 PSI FOR 15 MIN NO PRESSURE LOST.
	14:30 - 18:00	3.50	COMP	31	I	P		L/D 1 JT POOH W/ 96 JTS TBG L/D BIT, R/U WIRELINE RUN CBL F/ 3200 UP TO 2800' ACROSS HOLES @ 3010'-11', POOH RD WL SWI SDFN.
12/15/2011	7:00 - 7:30	0.50	COMP	48		P		HSM, LANDING TBG UNDER PSI.
	7:30 - 9:30	2.00	COMP	31	I	P		SICP 0, P/U & RIH W/ 37/8 BIT, POBS, 1.875 X/N, 216 JTS 23/8 L-80 TBG OUT OF DERICK, P/U 45 JTS 23/8 L-80 OFF FLOAT, R/U DRLG EQUIP.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-19L	Spud Conductor: 9/26/2011	Spud Date: 10/1/2011	
Project: UTAH-UINTAH	Site: NBU 921-19L		Rig Name No:
Event: COMPLETION	Start Date: 12/2/2011		End Date: 12/15/2011
Active Datum: RKB @4,845.00usft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/19/0/0/26/PM/S/2636/W/0/1534/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:30 - 17:30	8.00	COMP	44	C	P		BROKE CIRC CONVENTIONAL, TEST BOPS TO 3,000# FOR 15 MIN NO PSI LOSS. RIH. C/O 0' SAND TAG 1ST PLUG @ 8276' DRL PLG IN 5 MIN, 1300# PSI INCREASE RIH. C/O 30' SAND TAG 2ND PLUG @ 8490' DRL PLG IN 6 MIN, 800# PSI INCREASE RIH. C/O 15' SAND TAG 3RD PLUG @ 8727' DRL PLG IN 3 MIN, 1100# PSI INCREASE RIH. C/O 15' SAND TAG 4TH PLUG @ 9018' DRL PLG IN 5 MIN, 600# PSI INCREASE RIH C/O 20' SAND TAG 5TH PLUG @ 9291' DRL PLG IN 4 MIN, 600# PSI INCREASE RIH C/O 30' SAND TAG 6TH PLUG @ 9578' DRL PLG IN 4 MIN, 600# PSI INCREASE RIH C/O 30' SAND TAG 7TH PLUG @ 9839' DRL PLG IN 5 MIN, 600# PSI INCREASE RIH C/O 25' SAND TAG 8TH PLUG @ 10,078' DRL PLG IN 8 MIN, 200# PSI INCREASE RIH C/O TO 10,346', CIRC CLN, L/D 16 JTS. LAND TBG ON 309 JTS 23/8 L-80. ND BOPS NU WH, PUMP OFF BIT, TURN WELL OVER TO FB CREW. KB= 19' (SURFACE OPEN W/ POPOFF) HANGER = .83' SICP 2700 PSI, FTP 100 PSI 309 JTS 23/8 L-80 = 9811.39' POBS W/ 1.875 X/N = 2.20' (TEST LINE TO HAL 9000 TO 2500) EOT @ 9833.42' TWTR 7686 BBLS TWR 1735 BBLS TWLTR 5951 BBLS 331 JTD HAULED OUT 309 LANDED 22 TO RETURN
	17:30 - 17:30	0.00	PROD	50				WELL TURNED TO SALES @17:00 HR ON 12/15/11 - 970MCFD, 1920 BWPD, SICP 2700#, FTP 1200#, CK 20/80'

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-19L
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Site:	NBU 921-19L	**MD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Well:	NBU 921-19L	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-19L, SECTION 19 T9S R21E

Site Position:		**Northing:**	14,536,930.62 usft	**Latitude:**	40° 1' 17.173 N
From:	Lat/Long	**Easting:**	2,032,409.09 usft	**Longitude:**	109° 35' 59.658 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.90 °

Well NBU 921-19L, 2636 FSL 1534 FWL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,536,930.62 usft	**Latitude:**	40° 1' 17.173 N
	+E/-W	0.00 ft	**Easting:**	2,032,409.09 usft	**Longitude:**	109° 35' 59.658 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,826.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	09/21/11	11.09	65.86	52,301

Design OH

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	15.14

Survey Program **Date** 01/18/12

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
15.00	2,765.00	Survey #1 SDI MWD SURFACE (OH)	MWD	MWD - Standard
2,994.00	10,400.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Vertical Section (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
165.00	0.24	56.53	165.00	0.17	0.26	0.24	0.16	0.16	0.00
FIRST WFT MWD SURFACE SURVEY									
245.00	0.82	65.34	245.00	0.50	0.92	0.73	0.73	0.73	11.01
365.00	0.77	47.48	364.98	1.41	2.30	1.96	0.21	-0.04	-14.88
665.00	1.00	59.37	664.95	4.10	6.04	5.54	0.10	0.08	3.96
965.00	1.69	23.25	964.87	9.50	10.03	11.79	0.35	0.23	-12.04
1,265.00	1.63	6.87	1,264.74	17.80	12.29	20.40	0.16	-0.02	-5.46
1,565.00	0.50	216.37	1,564.71	20.99	12.02	23.40	0.69	-0.38	-50.17

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-19L
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Site:	NBU 921-19L	**MD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Well:	NBU 921-19L	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,865.00	0.50	258.25	1,864.70	19.66	9.97	21.59	0.12	0.00	13.96
2,165.00	0.63	250.25	2,164.69	18.84	7.13	20.05	0.05	0.04	-2.67
2,465.00	0.44	199.50	2,464.67	17.20	5.20	17.96	0.16	-0.06	-16.92
2,765.00	1.06	204.62	2,764.65	13.59	3.66	14.07	0.21	0.21	1.71
LAST WFT MWD SURFACE SURVEY									
2,994.00	0.88	183.78	2,993.62	9.91	2.66	10.26	0.17	-0.08	-9.10
FIRST SDI MWD PRODUCTION SURVEY									
3,089.00	0.97	166.02	3,088.60	8.40	2.80	8.84	0.31	0.09	-18.69
3,184.00	1.06	174.20	3,183.59	6.75	3.09	7.32	0.18	0.09	8.61
3,273.00	1.32	173.76	3,272.57	4.91	3.28	5.59	0.29	0.29	-0.49
3,368.00	1.14	174.46	3,367.55	2.88	3.49	3.69	0.19	-0.19	0.74
3,462.00	0.53	222.10	3,461.54	1.63	3.29	2.43	0.93	-0.65	50.68
3,557.00	0.83	330.61	3,556.53	1.90	2.66	2.53	1.18	0.32	114.22
3,652.00	1.54	344.73	3,651.51	3.73	1.98	4.12	0.80	0.75	14.86
3,747.00	2.20	342.77	3,746.46	6.70	1.11	6.76	0.70	0.69	-2.06
3,842.00	1.72	347.64	3,841.41	9.84	0.26	9.57	0.53	-0.51	5.13
3,936.00	1.58	338.29	3,935.37	12.42	-0.52	11.85	0.32	-0.15	-9.95
4,031.00	1.00	324.01	4,030.34	14.31	-1.49	13.42	0.69	-0.61	-15.03
4,126.00	0.88	330.29	4,125.33	15.61	-2.34	14.46	0.17	-0.13	6.61
4,221.00	0.70	336.88	4,220.32	16.78	-2.93	15.43	0.21	-0.19	6.94
4,316.00	1.25	50.34	4,315.31	17.97	-2.36	16.73	1.31	0.58	77.33
4,410.00	1.71	22.55	4,409.28	19.92	-1.03	18.96	0.89	0.49	-29.56
4,505.00	2.46	11.69	4,504.22	23.23	-0.07	22.40	0.89	0.79	-11.43
4,600.00	2.99	352.62	4,599.11	27.68	0.02	26.73	1.10	0.56	-20.07
4,694.00	2.47	353.86	4,693.00	32.13	-0.51	30.88	0.56	-0.55	1.32
4,789.00	3.34	350.59	4,787.88	36.89	-1.18	35.30	0.93	0.92	-3.44
4,884.00	2.73	345.50	4,882.75	41.82	-2.20	39.79	0.70	-0.64	-5.36
4,979.00	3.43	344.00	4,977.61	46.74	-3.55	44.19	0.74	0.74	-1.58
5,073.00	3.78	349.72	5,071.42	52.49	-4.88	49.39	0.53	0.37	6.09
5,168.00	3.43	349.19	5,166.24	58.36	-5.97	54.78	0.37	-0.37	-0.56
5,263.00	3.25	346.99	5,261.07	63.78	-7.11	59.71	0.23	-0.19	-2.32
5,358.00	2.73	336.80	5,355.95	68.48	-8.61	63.85	0.78	-0.55	-10.73
5,453.00	2.46	334.60	5,450.85	72.40	-10.37	67.18	0.30	-0.28	-2.32
5,548.00	1.76	327.83	5,545.78	75.48	-12.03	69.72	0.78	-0.74	-7.13
5,643.00	1.93	322.29	5,640.73	77.98	-13.78	71.67	0.26	0.18	-5.83
5,739.00	2.20	330.29	5,736.67	80.86	-15.68	73.95	0.41	0.28	8.33
5,834.00	1.67	327.57	5,831.62	83.61	-17.33	76.18	0.57	-0.56	-2.86
5,929.00	1.06	296.45	5,926.59	85.17	-18.86	77.29	0.99	-0.64	-32.76
6,024.00	0.55	164.28	6,021.59	85.12	-19.52	77.07	1.56	-0.54	-139.13
6,119.00	0.70	187.29	6,116.58	84.11	-19.47	76.10	0.30	0.16	24.22
6,215.00	0.62	192.04	6,212.57	83.02	-19.65	75.00	0.10	-0.08	4.95
6,310.00	0.88	177.80	6,307.57	81.79	-19.73	73.79	0.33	0.27	-14.99
6,404.00	0.55	209.73	6,401.56	80.67	-19.93	72.67	0.54	-0.35	33.97

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-19L
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Site:	NBU 921-19L	**MD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Well:	NBU 921-19L	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,499.00	0.70	206.45	6,496.55	79.76	-20.41	71.66	0.16	0.16	-3.45
6,595.00	0.88	235.11	6,592.54	78.81	-21.28	70.52	0.45	0.19	29.85
6,689.00	0.79	266.40	6,686.53	78.36	-22.52	69.76	0.49	-0.10	33.29
6,785.00	0.70	263.23	6,782.53	78.25	-23.76	69.32	0.10	-0.09	-3.30
6,879.00	1.23	270.53	6,876.51	78.19	-25.34	68.86	0.58	0.56	7.77
6,974.00	1.01	268.96	6,971.49	78.18	-27.20	68.36	0.23	-0.23	-1.65
7,069.00	1.23	279.05	7,066.48	78.33	-29.04	68.02	0.31	0.23	10.62
7,164.00	0.44	232.12	7,161.47	78.26	-30.34	67.62	1.04	-0.83	-49.40
7,259.00	0.70	167.96	7,256.46	77.47	-30.50	66.82	0.68	0.27	-67.54
7,354.00	0.88	186.50	7,351.45	76.18	-30.46	65.58	0.33	0.19	19.52
7,449.00	0.97	148.27	7,446.44	74.77	-30.12	64.31	0.64	0.09	-40.24
7,544.00	1.58	153.19	7,541.42	72.92	-29.11	62.78	0.65	0.64	5.18
7,639.00	1.58	155.65	7,636.38	70.56	-27.98	60.80	0.07	0.00	2.59
7,734.00	1.67	160.75	7,731.34	68.06	-26.98	58.65	0.18	0.09	5.37
7,828.00	1.61	155.62	7,825.31	65.56	-25.99	56.50	0.17	-0.06	-5.46
7,923.00	1.76	157.50	7,920.26	63.00	-24.88	54.31	0.17	0.16	1.98
8,018.00	1.67	160.49	8,015.22	60.34	-23.86	52.02	0.13	-0.09	3.15
8,113.00	1.85	154.69	8,110.18	57.65	-22.74	49.71	0.27	0.19	-6.11
8,208.00	1.98	158.81	8,205.12	54.74	-21.49	47.22	0.20	0.14	4.34
8,303.00	1.62	150.68	8,300.08	52.04	-20.24	44.94	0.46	-0.38	-8.56
8,398.00	1.78	151.22	8,395.04	49.57	-18.87	42.92	0.17	0.17	0.57
8,492.00	1.76	140.10	8,488.99	47.19	-17.24	41.04	0.37	-0.02	-11.83
8,587.00	1.49	150.47	8,583.95	44.99	-15.70	39.33	0.42	-0.28	10.92
8,682.00	1.67	149.59	8,678.92	42.72	-14.39	37.48	0.19	0.19	-0.93
8,776.00	1.41	142.65	8,772.88	40.62	-12.99	35.82	0.34	-0.28	-7.38
8,871.00	1.58	146.69	8,867.85	38.60	-11.57	34.24	0.21	0.18	4.25
8,966.00	1.58	141.94	8,962.81	36.47	-10.04	32.58	0.14	0.00	-5.00
9,061.00	1.58	151.52	9,057.78	34.29	-8.61	30.85	0.28	0.00	10.08
9,156.00	1.67	163.21	9,152.74	31.81	-7.58	28.73	0.36	0.09	12.31
9,251.00	1.93	157.15	9,247.69	29.01	-6.56	26.29	0.34	0.27	-6.38
9,346.00	1.67	156.44	9,342.65	26.27	-5.39	23.95	0.27	-0.27	-0.75
9,441.00	1.49	142.21	9,437.61	24.03	-4.08	22.13	0.45	-0.19	-14.98
9,536.00	1.58	157.94	9,532.58	21.84	-2.83	20.34	0.45	0.09	16.56
9,631.00	1.32	157.41	9,627.55	19.61	-1.92	18.43	0.27	-0.27	-0.56
9,725.00	1.49	125.42	9,721.52	17.90	-0.50	17.15	0.84	0.18	-34.03
9,820.00	1.67	124.98	9,816.48	16.40	1.64	16.25	0.19	0.19	-0.46
9,915.00	1.27	128.41	9,911.45	14.95	3.60	15.37	0.43	-0.42	3.61
10,010.00	1.32	123.31	10,006.43	13.69	5.34	14.61	0.13	0.05	-5.37
10,105.00	1.41	117.86	10,101.40	12.55	7.28	14.01	0.17	0.09	-5.74
10,200.00	1.06	110.39	10,196.38	11.69	9.14	13.67	0.40	-0.37	-7.86
10,295.00	1.32	121.82	10,291.36	10.81	10.89	13.28	0.37	0.27	12.03
10,345.00	1.32	140.98	10,341.35	10.06	11.75	12.78	0.88	0.00	38.32
LAST SDI MWD PRODUCTION SURVEY									
10,400.00	1.32	142.00	10,396.33	9.07	12.53	12.03	0.04	0.00	1.85

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-19L
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Site:	NBU 921-19L	**MD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Well:	NBU 921-19L	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
SDI PROJECTION TO BIT									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
165.00	165.00	0.17	0.26	FIRST WFT MWD SURFACE SURVEY
2,765.00	2,764.65	13.59	3.66	LAST WFT MWD SURFACE SURVEY
2,994.00	2,993.62	9.91	2.66	FIRST SDI MWD PRODUCTION SURVEY
10,345.00	10,341.35	10.06	11.75	LAST SDI MWD PRODUCTION SURVEY
10,400.00	10,396.33	9.07	12.53	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 921-19L
NBU 921-19L

OH

Design: OH

Survey Report - Geographic

18 January, 2012

Anadarko
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-19L
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Site:	NBU 921-19L	**MD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Well:	NBU 921-19L	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-19L, SECTION 19 T9S R21E

Site Position:		**Northing:**	14,536,930.62 usft	**Latitude:**	40° 1' 17.173 N
From:	Lat/Long	**Easting:**	2,032,409.09 usft	**Longitude:**	109° 35' 59.658 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.90 °

Well NBU 921-19L, 2636 FSL 1534 FWL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,536,930.62 usft	**Latitude:**	40° 1' 17.173 N
	+E/-W	0.00 ft	**Easting:**	2,032,409.09 usft	**Longitude:**	109° 35' 59.658 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,826.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	09/21/11	11.09	65.86	52,301

Design OH

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	15.14

Survey Program **Date** 01/18/12

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
15.00	2,765.00	Survey #1 SDI MWD SURFACE (OH)	MWD	MWD - Standard
2,994.00	10,400.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Map Northing (usft)**	**Map Easting (usft)**	**Latitude**	**Longitude**
0.00	0.00	0.00	0.00	0.00	0.00	14,536,930.62	2,032,409.09	40° 1' 17.173 N	109° 35' 59.658 W
15.00	0.00	0.00	15.00	0.00	0.00	14,536,930.62	2,032,409.09	40° 1' 17.173 N	109° 35' 59.658 W
165.00	0.24	56.53	165.00	0.17	0.26	14,536,930.80	2,032,409.35	40° 1' 17.175 N	109° 35' 59.655 W
FIRST WFT MWD SURFACE SURVEY									
245.00	0.82	65.34	245.00	0.50	0.92	14,536,931.14	2,032,410.00	40° 1' 17.178 N	109° 35' 59.646 W
365.00	0.77	47.48	364.98	1.41	2.30	14,536,932.06	2,032,411.36	40° 1' 17.187 N	109° 35' 59.628 W
665.00	1.00	59.37	664.95	4.10	6.04	14,536,934.82	2,032,415.06	40° 1' 17.214 N	109° 35' 59.580 W
965.00	1.69	23.25	964.87	9.50	10.03	14,536,940.28	2,032,418.97	40° 1' 17.267 N	109° 35' 59.529 W
1,265.00	1.63	6.87	1,264.74	17.80	12.29	14,536,948.61	2,032,421.10	40° 1' 17.349 N	109° 35' 59.500 W
1,565.00	0.50	216.37	1,564.71	20.99	12.02	14,536,951.79	2,032,420.78	40° 1' 17.381 N	109° 35' 59.503 W
1,865.00	0.50	258.25	1,864.70	19.66	9.97	14,536,950.44	2,032,418.75	40° 1' 17.368 N	109° 35' 59.530 W

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-19L
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Site:	NBU 921-19L	**MD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Well:	NBU 921-19L	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
2,165.00	0.63	250.25	2,164.69	18.84	7.13	14,536,949.57	2,032,415.93	40° 1' 17.359 N	109° 35' 59.566 W
2,465.00	0.44	199.50	2,464.67	17.20	5.20	14,536,947.90	2,032,414.01	40° 1' 17.343 N	109° 35' 59.591 W
2,765.00	1.06	204.62	2,764.65	13.59	3.66	14,536,944.26	2,032,412.53	40° 1' 17.308 N	109° 35' 59.611 W
LAST WFT MWD SURFACE SURVEY									
2,994.00	0.88	183.78	2,993.62	9.91	2.66	14,536,940.57	2,032,411.59	40° 1' 17.271 N	109° 35' 59.624 W
FIRST SDI MWD PRODUCTION SURVEY									
3,089.00	0.97	166.02	3,088.60	8.40	2.80	14,536,939.06	2,032,411.76	40° 1' 17.256 N	109° 35' 59.622 W
3,184.00	1.06	174.20	3,183.59	6.75	3.09	14,536,937.41	2,032,412.07	40° 1' 17.240 N	109° 35' 59.618 W
3,273.00	1.32	173.76	3,272.57	4.91	3.28	14,536,935.58	2,032,412.29	40° 1' 17.222 N	109° 35' 59.616 W
3,368.00	1.14	174.46	3,367.55	2.88	3.49	14,536,933.55	2,032,412.53	40° 1' 17.202 N	109° 35' 59.613 W
3,462.00	0.53	222.10	3,461.54	1.63	3.29	14,536,932.30	2,032,412.35	40° 1' 17.189 N	109° 35' 59.616 W
3,557.00	0.83	330.61	3,556.53	1.90	2.66	14,536,932.56	2,032,411.72	40° 1' 17.192 N	109° 35' 59.624 W
3,652.00	1.54	344.73	3,651.51	3.73	1.98	14,536,934.38	2,032,411.01	40° 1' 17.210 N	109° 35' 59.632 W
3,747.00	2.20	342.77	3,746.46	6.70	1.11	14,536,937.34	2,032,410.09	40° 1' 17.239 N	109° 35' 59.644 W
3,842.00	1.72	347.64	3,841.41	9.84	0.26	14,536,940.46	2,032,409.20	40° 1' 17.270 N	109° 35' 59.655 W
3,936.00	1.58	338.29	3,935.37	12.42	-0.52	14,536,943.03	2,032,408.37	40° 1' 17.296 N	109° 35' 59.665 W
4,031.00	1.00	324.01	4,030.34	14.31	-1.49	14,536,944.90	2,032,407.37	40° 1' 17.315 N	109° 35' 59.677 W
4,126.00	0.88	330.29	4,125.33	15.61	-2.34	14,536,946.19	2,032,406.50	40° 1' 17.328 N	109° 35' 59.688 W
4,221.00	0.70	336.88	4,220.32	16.78	-2.93	14,536,947.35	2,032,405.90	40° 1' 17.339 N	109° 35' 59.696 W
4,316.00	1.25	50.34	4,315.31	17.97	-2.36	14,536,948.55	2,032,406.45	40° 1' 17.351 N	109° 35' 59.688 W
4,410.00	1.71	22.55	4,409.28	19.92	-1.03	14,536,950.52	2,032,407.74	40° 1' 17.370 N	109° 35' 59.671 W
4,505.00	2.46	11.69	4,504.22	23.23	-0.07	14,536,953.84	2,032,408.65	40° 1' 17.403 N	109° 35' 59.659 W
4,600.00	2.99	352.62	4,599.11	27.68	0.02	14,536,958.30	2,032,408.67	40° 1' 17.447 N	109° 35' 59.658 W
4,694.00	2.47	353.86	4,693.00	32.13	-0.51	14,536,962.74	2,032,408.07	40° 1' 17.491 N	109° 35' 59.665 W
4,789.00	3.34	350.59	4,787.88	36.89	-1.18	14,536,967.49	2,032,407.33	40° 1' 17.538 N	109° 35' 59.673 W
4,884.00	2.73	345.50	4,882.75	41.82	-2.20	14,536,972.39	2,032,406.23	40° 1' 17.587 N	109° 35' 59.686 W
4,979.00	3.43	344.00	4,977.61	46.74	-3.55	14,536,977.29	2,032,404.80	40° 1' 17.635 N	109° 35' 59.704 W
5,073.00	3.78	349.72	5,071.42	52.49	-4.88	14,536,983.02	2,032,403.38	40° 1' 17.692 N	109° 35' 59.721 W
5,168.00	3.43	349.19	5,166.24	58.36	-5.97	14,536,988.88	2,032,402.20	40° 1' 17.750 N	109° 35' 59.735 W
5,263.00	3.25	346.99	5,261.07	63.78	-7.11	14,536,994.28	2,032,400.98	40° 1' 17.804 N	109° 35' 59.749 W
5,358.00	2.73	336.80	5,355.95	68.48	-8.61	14,536,998.96	2,032,399.41	40° 1' 17.850 N	109° 35' 59.769 W
5,453.00	2.46	334.60	5,450.85	72.40	-10.37	14,537,002.85	2,032,397.58	40° 1' 17.889 N	109° 35' 59.791 W
5,548.00	1.76	327.83	5,545.78	75.48	-12.03	14,537,005.90	2,032,395.88	40° 1' 17.919 N	109° 35' 59.813 W
5,643.00	1.93	322.29	5,640.73	77.98	-13.78	14,537,008.37	2,032,394.08	40° 1' 17.944 N	109° 35' 59.835 W
5,739.00	2.20	330.29	5,736.67	80.86	-15.68	14,537,011.22	2,032,392.14	40° 1' 17.972 N	109° 35' 59.860 W
5,834.00	1.67	327.57	5,831.62	83.61	-17.33	14,537,013.95	2,032,390.45	40° 1' 18.000 N	109° 35' 59.881 W
5,929.00	1.06	296.45	5,926.59	85.17	-18.86	14,537,015.48	2,032,388.89	40° 1' 18.015 N	109° 35' 59.900 W
6,024.00	0.55	164.28	6,021.59	85.12	-19.52	14,537,015.42	2,032,388.23	40° 1' 18.015 N	109° 35' 59.909 W
6,119.00	0.70	187.29	6,116.58	84.11	-19.47	14,537,014.41	2,032,388.30	40° 1' 18.005 N	109° 35' 59.908 W
6,215.00	0.62	192.04	6,212.57	83.02	-19.65	14,537,013.32	2,032,388.13	40° 1' 17.994 N	109° 35' 59.911 W
6,310.00	0.88	177.80	6,307.57	81.79	-19.73	14,537,012.08	2,032,388.07	40° 1' 17.982 N	109° 35' 59.912 W
6,404.00	0.55	209.73	6,401.56	80.67	-19.93	14,537,010.97	2,032,387.89	40° 1' 17.971 N	109° 35' 59.914 W
6,499.00	0.70	206.45	6,496.55	79.76	-20.41	14,537,010.05	2,032,387.42	40° 1' 17.962 N	109° 35' 59.920 W
6,595.00	0.88	235.11	6,592.54	78.81	-21.28	14,537,009.09	2,032,386.57	40° 1' 17.952 N	109° 35' 59.932 W
6,689.00	0.79	266.40	6,686.53	78.36	-22.52	14,537,008.61	2,032,385.34	40° 1' 17.948 N	109° 35' 59.948 W
6,785.00	0.70	263.23	6,782.53	78.25	-23.76	14,537,008.48	2,032,384.10	40° 1' 17.947 N	109° 35' 59.963 W
6,879.00	1.23	270.53	6,876.51	78.19	-25.34	14,537,008.40	2,032,382.52	40° 1' 17.946 N	109° 35' 59.984 W
6,974.00	1.01	268.96	6,971.49	78.18	-27.20	14,537,008.36	2,032,380.67	40° 1' 17.946 N	109° 36' 0.008 W
7,069.00	1.23	279.05	7,066.48	78.33	-29.04	14,537,008.48	2,032,378.82	40° 1' 17.947 N	109° 36' 0.031 W
7,164.00	0.44	232.12	7,161.47	78.26	-30.34	14,537,008.40	2,032,377.53	40° 1' 17.947 N	109° 36' 0.048 W
7,259.00	0.70	167.96	7,256.46	77.47	-30.50	14,537,007.60	2,032,377.37	40° 1' 17.939 N	109° 36' 0.050 W
7,354.00	0.88	186.50	7,351.45	76.18	-30.46	14,537,006.31	2,032,377.43	40° 1' 17.926 N	109° 36' 0.050 W
7,449.00	0.97	148.27	7,446.44	74.77	-30.12	14,537,004.91	2,032,377.79	40° 1' 17.912 N	109° 36' 0.045 W
7,544.00	1.58	153.19	7,541.42	72.92	-29.11	14,537,003.07	2,032,378.84	40° 1' 17.894 N	109° 36' 0.032 W
7,639.00	1.58	155.65	7,636.38	70.56	-27.98	14,537,000.73	2,032,380.00	40° 1' 17.871 N	109° 36' 0.018 W

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-19L
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Site:	NBU 921-19L	**MD Reference:**	GL 4826 & KB 19' @ 4845.00ft (PIONEER 54)
Well:	NBU 921-19L	**North Reference:**	True
Wellbore:	CH	**Survey Calculation Method:**	Minimum Curvature
Design:	CH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,734.00	1.67	160.75	7,731.34	68.06	-26.98	14,536,998.24	2,032,381.04	40° 1' 17.846 N	109° 36' 0.005 W
7,828.00	1.61	155.62	7,825.31	65.56	-25.99	14,536,995.76	2,032,382.07	40° 1' 17.821 N	109° 35' 59.992 W
7,923.00	1.76	157.50	7,920.26	63.00	-24.88	14,536,993.22	2,032,383.22	40° 1' 17.796 N	109° 35' 59.978 W
8,018.00	1.67	160.49	8,015.22	60.34	-23.86	14,536,990.58	2,032,384.29	40° 1' 17.770 N	109° 35' 59.965 W
8,113.00	1.85	154.69	8,110.18	57.65	-22.74	14,536,987.91	2,032,385.45	40° 1' 17.743 N	109° 35' 59.950 W
8,208.00	1.98	158.81	8,205.12	54.74	-21.49	14,536,985.01	2,032,386.74	40° 1' 17.714 N	109° 35' 59.934 W
8,303.00	1.62	150.68	8,300.08	52.04	-20.24	14,536,982.33	2,032,388.03	40° 1' 17.688 N	109° 35' 59.918 W
8,398.00	1.78	151.22	8,395.04	49.57	-18.87	14,536,979.89	2,032,389.44	40° 1' 17.663 N	109° 35' 59.901 W
8,492.00	1.76	140.10	8,488.99	47.19	-17.24	14,536,977.53	2,032,391.11	40° 1' 17.640 N	109° 35' 59.880 W
8,587.00	1.49	150.47	8,583.95	44.99	-15.70	14,536,975.36	2,032,392.69	40° 1' 17.618 N	109° 35' 59.860 W
8,682.00	1.67	149.59	8,678.92	42.72	-14.39	14,536,973.11	2,032,394.03	40° 1' 17.596 N	109° 35' 59.843 W
8,776.00	1.41	142.65	8,772.88	40.62	-12.99	14,536,971.03	2,032,395.46	40° 1' 17.575 N	109° 35' 59.825 W
8,871.00	1.58	146.69	8,867.85	38.60	-11.57	14,536,969.03	2,032,396.92	40° 1' 17.555 N	109° 35' 59.807 W
8,966.00	1.58	141.94	8,962.81	36.47	-10.04	14,536,966.93	2,032,398.48	40° 1' 17.534 N	109° 35' 59.787 W
9,061.00	1.58	151.52	9,057.78	34.29	-8.61	14,536,964.77	2,032,399.94	40° 1' 17.512 N	109° 35' 59.769 W
9,156.00	1.67	163.21	9,152.74	31.81	-7.58	14,536,962.31	2,032,401.01	40° 1' 17.488 N	109° 35' 59.755 W
9,251.00	1.93	157.15	9,247.69	29.01	-6.56	14,536,959.53	2,032,402.07	40° 1' 17.460 N	109° 35' 59.742 W
9,346.00	1.67	156.44	9,342.65	26.27	-5.39	14,536,956.80	2,032,403.29	40° 1' 17.433 N	109° 35' 59.727 W
9,441.00	1.49	142.21	9,437.61	24.03	-4.08	14,536,954.58	2,032,404.64	40° 1' 17.411 N	109° 35' 59.710 W
9,536.00	1.58	157.94	9,532.58	21.84	-2.83	14,536,952.41	2,032,405.92	40° 1' 17.389 N	109° 35' 59.694 W
9,631.00	1.32	157.41	9,627.55	19.61	-1.92	14,536,950.20	2,032,406.87	40° 1' 17.367 N	109° 35' 59.683 W
9,725.00	1.49	125.42	9,721.52	17.90	-0.50	14,536,948.51	2,032,408.30	40° 1' 17.350 N	109° 35' 59.664 W
9,820.00	1.67	124.98	9,816.48	16.40	1.64	14,536,947.04	2,032,410.47	40° 1' 17.335 N	109° 35' 59.637 W
9,915.00	1.27	128.41	9,911.45	14.95	3.60	14,536,945.62	2,032,412.45	40° 1' 17.321 N	109° 35' 59.612 W
10,010.00	1.32	123.31	10,006.43	13.69	5.34	14,536,944.39	2,032,414.21	40° 1' 17.309 N	109° 35' 59.589 W
10,105.00	1.41	117.86	10,101.40	12.55	7.28	14,536,943.28	2,032,416.17	40° 1' 17.297 N	109° 35' 59.564 W
10,200.00	1.06	110.39	10,196.38	11.69	9.14	14,536,942.45	2,032,418.04	40° 1' 17.289 N	109° 35' 59.540 W
10,295.00	1.32	121.82	10,291.36	10.81	10.89	14,536,941.60	2,032,419.81	40° 1' 17.280 N	109° 35' 59.518 W
10,345.00	1.32	140.98	10,341.35	10.06	11.75	14,536,940.86	2,032,420.67	40° 1' 17.273 N	109° 35' 59.507 W
LAST SDI MWD PRODUCTION SURVEY									
10,400.00	1.32	142.00	10,396.33	9.07	12.53	14,536,939.88	2,032,421.48	40° 1' 17.263 N	109° 35' 59.497 W
SDI PROJECTION TO BIT									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
165.00	165.00	0.17	0.26	FIRST WFT MWD SURFACE SURVEY
2,765.00	2,764.65	13.59	3.66	LAST WFT MWD SURFACE SURVEY
2,994.00	2,993.62	9.91	2.66	FIRST SDI MWD PRODUCTION SURVEY
10,345.00	10,341.35	10.06	11.75	LAST SDI MWD PRODUCTION SURVEY
10,400.00	10,396.33	9.07	12.53	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____